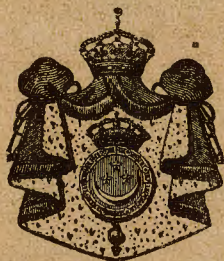


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TOME XX. — 2<sup>e</sup> FASCICULE

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**BULLETIN**  
**DE LA**  
**SOCIÉTÉ ROYALE DE GÉOGRAPHIE**  
**D'ÉGYPTÉ**



IMPRIMÉ PAR L'IMPRIMERIE  
DE L'INSTITUT FRANÇAIS D'ARCHÉOLOGIE ORIENTALE DU CAIRE  
POUR LA SOCIÉTÉ ROYALE DE GÉOGRAPHIE D'ÉGYPTÉ

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## UN RÉSUMÉ D'IDRĪSĪ

PAR

GASTON WIET.

Mon collègue Lévi-Provençal m'a remis il y a quelques mois le premier volume d'un manuscrit du *Rawḍ al-mi'tār* pour me permettre d'en extraire, en vue d'une publication, les paragraphes relatifs à l'Égypte. Il attirait en même temps mon attention sur une remarque de MM. Brockelmann et Gaudefroy-Demombynes<sup>(1)</sup> : ces derniers signalaient un résumé de cet ouvrage, composé par Maḳrīzī, qui existe en manuscrit dans différentes bibliothèques. Les textes du *Rawḍ mi'tār* concernant l'Égypte seront publiés prochainement.

J'avais donc le devoir d'examiner le manuscrit de Maḳrīzī qui se trouve à la Bibliothèque Nationale du Caire. Il porte pour titre : *Djāny*<sup>(2)</sup> *l-azhār min al-rawḍ al-mi'tār*, « la Cueillette des fleurs du rawḍ al-mi'tār ». En voici le préambule :

فلما كان كآب الروض العطار في عجائب الاقطار من احسن ما صنف في فنه  
غير انه اسهب فيه غاية الاسهاب واتى فيه بالعجب العجائب فخطر لى ان التقط من  
درره واجتنى من محاسن زهره فجاء بحمد الله غاية وفي معناه نهاية يسرح في رياضته الناظر  
ويسر بمطالعه اهل البصائر مع الفاظ وجيزة تليق بالمقام يتفرع منها كثير من الكلام  
مع كثرة فوائده ولطائف فرائده وسميته جنى الازهار من الروض العطار

« Le livre intitulé *Le jardin parfumé des merveilles de l'univers* passe pour l'ouvrage le plus parfait en la matière; mais l'auteur s'y est livré à de trop longs développements, accumulant merveilles sur merveilles. Aussi

<sup>(1)</sup> BROCKELMANN, *Geschichte der arabischen Litteratur*, II, p. 41; GAUDEFROY-DEMOMBYNES, *La Syrie*, p. XI-XII.

<sup>(2)</sup> Ne se méfiant pas de la transcription de Brockelmann, ou distrait, M. Gaudefroy-Demombynes a lu : *ghanz*, « œillade ».



m'est-il venu à l'idée de faire un choix parmi ses perles et de cueillir ses plus belles fleurs. Grâce à Dieu, l'œuvre a été menée à bonne fin et a atteint pleinement son but. Le lecteur va pouvoir s'ébattre dans ses jardins et les personnes intelligentes en trouveront la consultation agréable. Je m'y suis servi d'un style concis qui convient au sujet et qu'on pourra développer à volonté, car l'intérêt y est considérable et les singularités en sont fort belles. Je l'ai intitulé : *La cueillette des fleurs du jardin parfumé.* »

Cette préface est claire : elle n'est pourtant qu'une mystification. Décidément, Maḳrīzī est un polygraphe assez curieux et, dans le cas actuel, on se demande s'il a été trompé ou bien s'il se moque de nous. Copiste, Maḳrīzī le fut toute sa vie, et nous lui en sommes reconnaissants, puisqu'il nous a conservé des textes perdus. Mais prenons un cas analogue à celui qui nous occupe présentement. Maḳrīzī a composé une petite histoire d'Abyssinie et voici les résultats auxquels est arrivé M. Gaudefroy-Demombynes <sup>(1)</sup> :

« Non seulement Maḳrīzī copie avec sérénité le *Masālik al-abṣār* sans en rien dire, mais il nous annonce, dans un touchant préambule, qu'il a écrit son mémoire dans la ville sainte de la Mecque et qu'il doit ses renseignements à des personnages dignes de foi qu'il a rencontrés. On pourrait essayer de croire que ces pieuses personnes ont abusé de la crédulité du naïf Maḳrīzī et lui ont récité le *Masālik* sans l'en prévenir; malheureusement Maḳrīzī a copié ailleurs le *Masālik*, il le connaît bien; on dirait volontiers qu'il le connaît trop bien. »

En fait, ce nouvel ouvrage de Maḳrīzī est un extrait de la *Géographie d'Iḍrīsī* <sup>(2)</sup> et l'œuvre n'a aucun rapport avec le *Rawḍ mi'tār* <sup>(3)</sup>.

<sup>(1)</sup> GAUDEFROY-DEMOMBYNES, *Masālik al-abṣār, L'Afrique, moins l'Égypte*, p. 34.

<sup>(2)</sup> Signalé par BROCKELMANN, *op. cit.*, supplément, II, p. 38. — Cette notice a été rédigée après l'impression de la préface de *La péninsule ibérique d'après al-Rawḍ al mi'tār*, de Lévi-Provençal, qui continue à voir dans cet opuscule un résumé du *Rawḍ* (p. xiv, xviii), ce qui est tout naturel. — Je m'aperçois que dans son catalogue des manuscrits de Paris, Blochet donne le n° 5919 comme un extrait d'Iḍrīsī. C'est bien une découverte de Blochet, car le préambule est le même que dans le manuscrit du Caire.

<sup>(3)</sup> Il est d'ailleurs fréquent de voir le jugement sévère que l'auteur du *Rawḍ mi'tār* porte sur l'œuvre d'Iḍrīsī (cf. LÉVI-PROVENÇAL, *op. cit.*, p. xix).

Nous en publions les notices relatives à l'Égypte. Cette publication permet tout d'abord la liquidation du problème d'attribution. Elle aura, croyons-nous, l'avantage de mettre au point l'excellente traduction de Dozy et de Goeje, laquelle date déjà de 1866, à la lumière des travaux récents sur la géographie de l'Égypte.

Voici les abréviations utilisées dans les notes :

ANDALUSI. — FERRAND, *La Tuhfat al-albāb de Abū Ḥāmid al-Andalusī al-Garnāfi*, *Journal asiatique*, juillet-décembre 1925.

Branches du Nil. — PRINCE OMAR TOUSSOUN, *Mémoires sur les anciennes branches du Nil*, *Mémoires de l'Institut d'Égypte*, t. IV.

GUEST. — *The Delta in the Middle Ages*, *Journal of the Royal Asiatic Society*, octobre 1912.

Hist. du Nil. — PRINCE OMAR TOUSSOUN, *Mémoires sur l'histoire du Nil*, *Mémoires de l'Institut d'Égypte*, t. VIII.

IDRISI. — *Description de l'Afrique et de l'Espagne*, par Dozy et de Goeje, Leyde 1866.

IDRISI, trad. Jaubert. — *Géographie d'Edrisi*, Paris 1836-1840.

MAKRIZI. — *Al-maw'āiz*, éd. WIET, *Mémoires de l'Institut français d'Archéologie orientale du Caire*, t. I à V (XXX, XXXIII, XLVI, XLIX, LIII).

Matériaux. — J. MASPERO et WIET, *Matériaux pour servir à la géographie de l'Égypte*, *Mémoires de l'Institut français*, t. XXXVI.

MILLER. — *Mappæ arabicæ*, Stuttgart, depuis 1926.

PRINCE OMAR TOUSSOUN. — *La Géographie de l'Égypte à l'époque arabe*, *Mémoires de la Société Royale de Géographie d'Égypte*, t. VIII.

YAKUBI, trad. Wiet. — *Les Pays*, Le Caire 1937.



(f° 3) اسوان بلد صغير من ثغور<sup>(1)</sup> النوبة وهي آخر بلاد الصعيد الاعلى وهي عامرة كثيرة الحبوب والفواكه والبقول رخيصة الاسعار وربما اغار على اطرافها خيل<sup>(2)</sup> السودان المسمون بالبلين ويزعمون انهم روم نصارى وهم ينتقلون فيها بين ارض الحجة والحبشة ولا يقيمون بمكان وقرب اسوان جبل في اسفله معدن الزمرد في بركة منقطعة عن العمارة ولا يوجد الزمرد في جميع الارض الا فيه وهناك معدن الذهب وشرب<sup>(3)</sup> اهلها من الآبار والغالب على اهلها انهم طلاب معادن الفضة والذهب واكثر<sup>(4)</sup> معيشتهم منه وهذه المعادن في جبل بوريس على اربعة ايام منها وهي على خمسة عشر يوما من اسوان

(f° 8) الواحات الداخلة خراب الآن لا ساكن فيها والواحات الخارجة<sup>(5)</sup> معبورة فيها قرى كثيرة يسكنها اخلاط من الناس وهي بين ارض مصر وبلاد السودان وتعرف بارض سنترية وبها جبل جالوت البربرى علساني جبل بالواحات الداخلة وفيه معدن يستخرج منه حجر اللازورد ومنه يجلب الى مصر

الجفار قرية بقرب الواح يحيط بها نخل وماء عذب  
القيس بلد مشهورة بشاطئ النيل يزرع بها القصب والنخل  
دهروط بلد بقرب القيس

منية ابن الخصيب بلد مشهورة بشاطئ النيل وهي عامرة حولها جنات ومنزهات  
الاشمونى بلد عامرة بقرب المنية بها جنات  
بوصير بها جنات متصلة ويقال ان اكثر شجرة<sup>(6)</sup> فرعون كان منها وبها بقية من  
طلاب السحر

(1) Ms. : صغور — (2) Ms. : جيل — (3) La fin du paragraphe écrite en marge. —

(4) Ms. : اكسر — (5) Ms. : الخراجة — (6) Ms. : شجر



زماخر بلد بشاطى النيل الغربى على فم المنى حسنة البناء كثيرة البساتين  
 طيلمون جبل يعترض النيل من غريبه الى شرقه والماء ينصب عليه بقوة جرى  
 ويخرج عنه بقر وانضغاط<sup>(1)</sup> يمنع المراكب الصاعدة من مصر الى اسوان وغيرها  
 تانسف وهو جبل الطير جبل على مرحلتين من جبل الطيلمون فى جانبه حافة  
 ملساء فيها شق ضيق يجتمع اليه فى يوم من السنة الطير المسمى بوقير<sup>(2)</sup> وهو طير ملون  
 من طيور الماء فيأتى كل طير منها فيدخل راسه فى الشق ويخرجه ويمضى وهكذا كل  
 واحد حتى ينطبق الشق على راس احدها فتتفرق الطيور عنه ويبقى معلقا حتى يموت  
 وتتساقط أجزأؤه<sup>(3)</sup>

اسيوط بلد بشط النيل الغربى كبيرة عامرة جامعة لضروب المحاسن  
 فقط بلد بالصعيد بعيدة عن شط النيل الشرقى قليلا جامعة متحضرة اهلها شيعة  
 وبها بعض بقايا من الروم ويزرع بها بقول كثيرة كاللفت والحس ويستخرجون منها  
 ادھانا ويصنعون منه الصابون يجلب الى مصر وغيرها وصابونها معروف بالنظافة  
 قوص بلد كبيرة شرق النيل على سبعة اميال منه وهى جامعة مقصودة للتجارة  
 ولطيب هواها وحسن تربتها كانت الوان اهلها مصفرة وقل ما دخلها غريب وسلم  
 من المرض

دمايل<sup>(4)</sup> بلد شرق النيل على سبعة اميال منه حسنة البناء طيبة الهوى اهلها  
 اخلاط والغالب اهل المغرب والغريب عندهم مكرم  
 قولة بلد على خمسة اميال من دمايل جامعة متحضرة وبها انواع من الفواكه  
 ومنها [عنب] ما على وجه الارض مثله وزنت منه حبة فكانت اوقية وفيها من الموز  
 ما يجل عن المقدار المعهود

دمايل : Ms. (4) — اجزايه : Ms. (3) — موقير : Ms. (2) — انضغاط : Ms. (1)

انصنا مدينة بشط النيل الشرقى قديمة البناء حسنة البساتين والمتنزهات وهى  
 المشهورة بمدينة السحرة<sup>(1)</sup> ومنها جليهم فرعون فى يوم الموعد  
 النجاسية قرية بقرب انصنا شرق النيل عامرة جامعة كثيرة الخصب والثمار  
 منسارة قرية بالجانب الغربى من النيل تقابل انصنا بها نخل وزرع وضرع وبساتين  
 طحا بلد سفلى الاشمونى يعمل بها ستور صوف واكسية ويقال ان التساح يضرب  
 فى عدوة الاشمونى ولا يضرب بعدوة انصنا وانها مطلسة  
 المراغة بغربى النيل تقرب من مقابلة انصنا

(f° g) ترمنت بغربى النيل بقرب مراغة كثيرة البساتين والعمارات

صولى قرية بقرب ترمنت على فم خليج المنى كبيرة بها اسواق ونخيل  
 اخميم بلد شرق النيل بينها وبينه نحو ميلين بها عمارة كثيرة ونخل ويزرع بها  
 القصب وبها البناء المسمى بربا وهو بيت بناء هرمس الاكبر قبل الطوفان راي فى علمه  
 ان الارض يهلك من فيها لكنه لم يتحقق سبب الهلاك هل هو بالنار او بالماء فبنى  
 بيوتا من طين لم يحرق بنار فلما جفت نقش فيها ما احب من الصور والعلوم وقال  
 ان كان<sup>(2)</sup> مهلك للعالم نارا<sup>(3)</sup> صبرت هذه البيوت على النار وحسنت بها وكان ما فيها  
 من النقوش بضروب العلوم باقيا ثابتا يقروه<sup>(4)</sup> من ياتى بعد ثم بنى بيوتا بالحجر ونقش  
 فيها جميع العلوم المحتاج اليها وقال ان كان المهلك للعالم الماء فالبيوت الطينية تتخلل<sup>(5)</sup> وتبقى  
 الحجرية بما فيها من العلوم فلا يضرها الماء فلما كان الطوفان تحللت البيوت الطينية  
 وبقيت الحجرية بما فيها من العلوم وهى برابى كثيرة منها بربا اسنا وبربا دندرة وبربا  
 اخميم وهى اثبتا بناء واحسنا رسوما وفى هذا البيت بعض صور الكواكب والصنائع  
 وسائر العلوم

Ms. (5) — يقرره : Ms. (4) — فاذا : Ms. (3) — الدخان : Ms. (2) — السحر : Ms. (1)



بران جبل من مقابل اسيوط الى قرب قولة فيه كوز ولد اشنون بن مصر ايم  
اسنا بلد بقرب النيل قديمة من بناء القبط الاول وبها مزارع وبساتين وبها غناب  
كثير يتخذ زبيبها وبها بقايا بنيان للقبط  
ارمنت بلد شرق النيل على مسافة<sup>(1)</sup> يوم من شطه وهى من بناء القبط وبها  
بساتين كثيرة قل ما يوجد مثلها فى البلدان حسنا  
الهنسا بلد بشط الخليج المسمى بالمنى من الجهة الغربية عامرة جامعة وهى على  
سبعة مراحل من مصر وبها ينسج المقاطع والاكسية والستور  
اهناس بلد بقرب المنى صغيرة متحضرة كثيرة الامل بها اسواق ومتاجر ومراج  
مقصودة لذلك

اللاهون بلد على مرحلتين من اهناس  
دلاص بلد شرق النيل بها يصنع اللحم الدلاصى وهى عامرة جلييلة وينسج بها الحرير  
وهى مدينة قديمة قبطية  
تربة ومسسطا بلدان على ميلين من النيل عامرتان بها مزارع لقصب السكر ويعمل  
فيها من السكر والفانيد ما يقوم باكثر ديار مصر

المقطم جبل يمر من مصر الى قرب اسوان وفيه ذهب كثير وكذا فى تربته اذا  
دبرت استخرج منها ذهب صالح وتتصل منه قطع بديار مصر الداخلة فى البحر الملح  
وبناحية القلزم وهو بحر الحجاز وفيه كوز مما خبائه الملوك المتقدمة وكثير من هياكل  
الكهنة وعجائبها ومما يلى البحر منه الجبل المدور الذى لا يمكن احد صعوده لملاسته  
ويقال ان فيه كوزا عظيمة لمقطام الكاهن واليه ينسب هذا الجبل وفيه ايضا كوز  
لبعض ملوك مصر وجواهر وتربة الصنعة وتماثيل عجيبه واصنام الكواكب

(1) Ms. : مسافت :

عذاب<sup>(1)</sup> بلد بشاطى بحر القلزم اهلها سود وليست بالكثيرة العمارة ومنها المجاز الى  
جدة وينزلها عامل من قبل رئيس الجبة وعامل من قبل ملك مصر يقتسمون جبايتها  
نصفين وعلى عامل ملك مصر جلب المعيشة اليها وعلى رئيس الجبة حمايتها من الحبشة  
وبها يوخذ المكس من الحجاج الواردين من المغرب

(f° 25) اسكندرية مدينة عظيمة بشاطى البحر الملح بناها الاسكندر بها اثار<sup>(2)</sup>  
عجيبة ورسوم قائمة تشهد لبانيها بالملك والسلطان وتعرب عن تمكن حصينة الاسوار نامية  
الاشجار جميلة المقدار كثيرة العمارة رابحة التجارة شاذخة البناء رائعة المعنى<sup>(3)</sup> شوارعها فساح  
وعقائد بنيانها صحاح وفرش دورها بالرخام والرممر واسواقها كثيرة الاتساع ومزارعها  
واسعة الانتفاع وبها المنارة التى ليس على قرار الارض مثلها بناء من صميم الكلدان قد  
افرج الرصاص فى اوصالها فبعضها مرتبط ببعض معقود وارتفاعها ثلاثمائة ذراع وقيل  
ان بانها هو بانى الاهرام وبالاسكندرية المسلمتان وهما حجران على طولهما [مربعان]  
واعلاهما اضيق من اسفلهما وعليهما كتابة بالسريانى وهما من حجر جبل يريم وعليهما  
مكتوب انا يعمر بن شداد بنيت هذه المدينة حين لا هرم فاش ولا موت ذريع ولا  
شيب ظاهر واذا الناس لا يعرفون لهم ربا الا يعمر بن شداد فاقمت اسطواناتها واجريت  
انهارها وغرست<sup>(4)</sup> اشجارها وارتدت ان اطول على الملوك الذين كانوا بها بما اجعله فيها  
من الآثار المعجزة فارسلت الى جبل ريم الاحمر فاقطع هذان الحجران وحملتا وهى  
من اعمال مصر وقاعدة من قواعدها وفى بحرهما يوجد سمكة مخططة لذينة تسمى  
العروس اذ اكلت راي اكلها فى نومه كانه يوقى ان لم يتناول عليها شئ من الشراب  
او يكسر من اكل العسل

(f° 25) مدينة الفسطاط هى مصر سميت به [مصر] ام بن حام بن نوح بناها<sup>(5)</sup>

(1) Ms. : بنتها — (2) Ms. : غرئت — (3) Ms. : المعنى — (4) Ms. : اسار — (5) Ms. : عنداب :



اليها سار منحدرًا مع النيل الى المنية خمسة اميال ومنها الى منية القائد وهي بلد عامرة ذات مزارع وخصب ومنها الى شبرة خمسة اميال ومنها الى بيسوس خمسة اميال<sup>(1)</sup> ومنها الى الخرقانية خمسة اميال ومنها الى سرودس خمسة اميال<sup>(1)</sup> ومنها الى شلقان خمسة اميال وهي كبيرة عامرة ومنها الى زقينة خمسة عشر ميلا

شطونف قرية حسنة من اعمال مصر من الجهة البحرية

شنوان<sup>(2)</sup> قرية من اعمال مصر على خمسة وعشرين ميلا من شطونف

الشاميين<sup>(3)</sup> قرية من اعمال مصر بالشط الشرقى على عشرة اميال من شنوان وبها يزرع القصب والقثاء وهي اكبر غلاتها ويقابلها من الغربى طنت وهي قرية حسنة كثيرة المزارع على خمسة عشر ميلا من شنوان

قشيرة الابراج قرية بمصر على اثني عشر ميلا من شنوان وبها غلات وعمارات

كثيرة

شيرة قرية من اعمال مصر مقابلة الى قشيرة الابراج

الصاحية قرية بالوجه البحرى من اعمال مصر على عشرة اميال من شيرة منحدرًا

وهي بلد متحضرة بها عمارات وزراعات واهلها لصوص

العطف قرية من اعمال الغربية كثيرة الخيرات

دجوة<sup>(4)</sup> قرية صغيرة من اعمال مصر على خمسة عشر ميلا من العطف بها اسواق

عامرة وزراعات متصلة وخيرات كثيرة

منية العطار قرية صغيرة من اعمال مصر بها بساتين وجنان ومزارع

شميرف<sup>(5)</sup> قرية من اعمال مصر على عشرة اميال من العطف من الجهة الغربية

انتهى قرية من اعمال مصر تقابل منية العطار

Ms. : — جدوه : Ms. : — الشاميين : Ms. : — سنوان : Ms. : — ايام : Ms. : (1)

شميرق

[في الاول] ومدينة مصر اولًا عين شمس فلما افتتحها عمرو بن العاص اختط حول فسطاته<sup>(sic)</sup> فعمروها مكانه وتسمى باليونان بلشنونه<sup>(sic)</sup> وهي الآن على غاية من العماره والخصب وارضها سبخة ولاهلها رفاة وظرف شامل ومما يلي جنوب الفسطاط قرية منف وبشالها مدينة تسمى عين شمس وهما كالقريتين مما يلي جبل المقطم وقيل انهما كانا منتزهين لفرعون وبقرها على راس المقطم مكان يعرف بتنور فرعون والتساح لا يضر بالفسطاط ولا بحريها لطلمس<sup>(1)</sup> في المقياس وكذا بعدوة بوصير ويضر بعدوة الاشمنين وبينهما عرض البحر وهذا امر عجيب وبعين شمس ينبت البلسان ولا يوجد بمكان من الارض الا<sup>(2)</sup> هناك وباسفل الفسطاط ضيعة سيروا ويتصل بها جبل المقطم وبه جبل من قبور الانبياء وعلى ستة اميال منها الهرمان وهما مشهوران ويتصل بغربها مدينة الفيوم وبينهما مرحلتان وهي كبيرة ذات بساتين ولها جانبان على واد اللاهون ويقال ان يوسف عليه السلام هو الذى بناها في سبعين يوما فقال الملك العزيز الذى اقطعه اياها<sup>(3)</sup> هذا عمل الف يوم فلذلك سميت الفيوم وحفر بها نهر المنى وهوؤها وبى ونهر اللاهون احتفروه يوسف واجرى فيه الماء واحتفر ايضا نهر تنهت وانشا حولها خمسة وثمانين<sup>(4)</sup> قرية ومن خرج من مصر ذاهبا للصعيد سار من الفسطاط الى منية السودان وهي منية جلييلة بها عمارات وهي على شط النيل الغربى وهي على خمسة عشر ميلا ومنها الى بياض عشرون ميلا وهي قرية عامرة ومنها الى الحمى الصغير عشرون ميلا ومنها الى الحمى الكبير فى الجهة الشرقية عشرون ميلا وهي قرية عامرة بها كروم ومزارع قصب ومنها الى دير البتوم فى الجهة الشرقية عشرون ميلا ثم الى قرية تونس فى الجهة الغربية ميلا ومنها الى دهروط نصف مرحلة وهي فى الجهة الغربية من النيل ومنها الى القيس عشرون ميلا وهي قديمة واما اسفل الارض من مصر فمن اراد المسير

ثمانون : Ms. : — اياها : Ms. : — Manque dans ms. — (2) — لطمس : Ms. : (1)



بنه العسل قرية من اعمال مصر جليلة كثيرة الاشجار والفواكه ويقابلها منيتها الكبرى المنسوبة الى بنه

اتريب<sup>(1)</sup> قرية من اعمال مصر بالشرقية عامرة

جنجر<sup>(2)</sup> قرية من اعمال مصر بالشرقية كثيرة الغلات والمزارع

منية الحوفي قرية من اعمال مصر مقابلة لجنجر<sup>(3)</sup> من الجهة الغربية

سنيت<sup>(4)</sup> قرية من اعمال مصر

ورورة<sup>(5)</sup> قرية من اعمال مصر عامرة كثيرة الخصب

الحماذية قرية من اعمال مصر

صحرا<sup>(6)</sup> قرية من اعمال مصر

صحرا<sup>(7)</sup> الصغرى قرية من اعمال مصر عامرة<sup>(8)</sup> بها غلات السمسم وانواع

الحبوب

منية غمر قرية من اعمال مصر بها سوق ومتاجر

منية زفتة قرية من اعمال مصر بالغربية

منية الفيوان قرية من اعمال مصر بالغربية بها يزرع الكمون والبصل والثوم

دقدوس قرية من اعمال مصر بالشرقية كبيرة ذات مزارع وبساتين وسوق يوم

الاربعاء

منية فها<sup>(9)</sup> قرية من اعمال مصر بالشرقية حسنة كثيرة الخير والغلات

حانوت قرية من اعمال مصر بالغربية ذات مياه وعمارات وزراعات ونبات

الكمان يجود فيها

منية اشنا<sup>(9)</sup> قرية من اعمال مصر حسنة

Ms. : — منيت : Ms. : — لجنجو : Ms. : — جنجو : Ms. : — اتريت : Ms. :  
اسنا : Ms. : — غامره : Ms. : — صحرا : Ms. : — صحرا : Ms. : — وزوره

دمسيس قرية من اعمال مصر عامرة وبها سوق يوم السبت تقصده التجار

مليح قرية من اعمال مصر عامرة وبها اسواق وتجارات

منية عبد الملك قرية من اعمال مصر عامرة كثيرة الخيرات مفيدة الزراعات

طنطنة قرية في جهة الغرب متحضرة ذات اسواق وارزاق واهلها في فواهي

وخصب

طايط<sup>(1)</sup> قرية من اعمال مصر على خمسة عشر ميلا من طنطنة

الجعفرية<sup>(2)</sup> قرية من اعمال مصر ذات مزارع وغلات

بلوس قرية من اعمال مصر

سنطة قرية من اعمال مصر عامرة

سنباط قرية من اعمال مصر بها مزارع الكمان وتجارات

منية بدر قرية من اعمال مصر

ششنا قرية من اعمال مصر كثيرة الاشجار والمزارع وبها معاصر للقص

بوهات قرية من اعمال مصر عامرة ذات اسواق

سنباس قرية من اعمال مصر متحضرة

طناح قرية من اعمال مصر

بحيرة الذار قرية من اعمال مصر وهي متصلة ببحيرة تنيس وبينها وبين البحر الملح

ثلاثة اميال وهي كبيرة واسعة القطر

حصن الماء جزيرة ببحيرة الذار

تونة جزيرة في اعمال مصر

نبلية جزيرة في جنوب بحيرة تنيس

الجعفرية : Ms. : — طلطي : Ms. :<sup>(1)</sup>



شمون<sup>(1)</sup> قرية من اعمال مصر على عشرة اميال من طماخ وهى عامرة  
 قرية الانصار من اعمال مصر على عشرين ميلا من شمون<sup>(2)</sup>  
 قرية وبيدة من اعمال مصر على عشرين ميلا على<sup>(3)</sup> الضفة الشرقية من قرية الانصار  
 برنبليز<sup>(4)</sup> من اعمال مصر فى الضفة الغربية على عشرين ميلا من قرية وبيدة  
 دمياط مدينة على ضفة البحر وهى من اعمال مصر يعمل بها الثياب النفيسة  
 دميرة قرية صغيرة من اعمال مصر بها متاع كثير وسوق ومتاجر  
 شرنقاش قرية من اعمال مصر فى الضفة الغربية عامرة حسنة ذات مزارع وغلات  
 وصناعات  
 شرماسح قرية من اعمال مصر من الضفة الشرقية على عشرين ميلا من شرنقاش  
 وهى جلييلة وبها سوق جامع  
 منية العلوق قرية من اعمال مصر فى [الضفة] [الشرقية] على عشرين ميلا من  
 شرماسح<sup>(5)</sup> وهى متحضرة وبها معاصر للقصب وغلات  
 فارسكور قرية من اعمال مصر من الضفة الشرقية على عشرة اميال من منية العلوق  
 بورة قرية من اعمال مصر ذات زراعات وغلات وبساتين على خمسة عشر ميلا  
 من فارسكور  
 دمسيس قرية من اعمال مصر  
 فسطاط قرية من اعمال مصر على خمسين ميلا من شطنوف<sup>(6)</sup>  
 منية غزال قرية من اعمال مصر على عشرين ميلا من فوهة خليج المحلة من الجهة  
 الشرقية ذات محاسن وضروب غلات  
 محلة ابى الهيتم فى الضفة الغربية قرية من اعمال مصر

Ms. : — برنبليز : Ms. (4) — من : Ms. (3) — شمس : Ms. (2) — شمس : Ms. (1)  
 شطنوف : Ms. (6) — سارماسح

بنا<sup>(1)</sup> قرية من اعمال مصر حسنة بها بساتين  
 بوصير قرية من اعمال مصر عامرة  
 رحل جراح قرية من اعمال مصر صغيرة عامرة ولها غلات ودخل وخرج  
 سمندو قرية من اعمال مصر على اثنا عشر ميلا من منية ابن جراح وهى حسنة  
 عامرة بها مرافق واسعار رخيصة  
 سندفة قرية من اعمال مصر على ثمانية اميال من سمندو  
 ثعبانية قرية من اعمال مصر على<sup>(2)</sup> ثمانية عشر ميلا من سمندو وهى عامرة وبها  
 اسواق وعمارات  
 منية عساس قرية من اعمال مصر على اثني عشر ميلا من الثعبانية وهى كثيرة البركات  
 جامعة لضروب من الغلات  
 جوجر قرية من اعمال مصر على اثني عشر ميلا من منية عساس  
 وبش<sup>(3)</sup> الحجر قرية من اعمال مصر بها بساتين واشجار وهى على ستة وثلاثين  
 ميلا من سمندو  
 طرخا قرية من اعمال مصر على اثني عشر ميلا من جوجر  
 شها<sup>(4)</sup> قرية صغيرة من اعمال مصر عامرة بها تجارات  
 محلة دمينة قرية من اعمال مصر  
 قباب البازيار قرية من اعمال مصر على اثني عشر ميلا من محلة دمينة  
 قباب العريف قرية من اعمال مصر على ستة عشر ميلا من قباب البازيار  
 دمو<sup>(5)</sup> قرية من اعمال مصر على خمسة عشر ميلا من قباب العريف  
 طماخ قرية من اعمال مصر على ميلين من دمو<sup>(6)</sup> عامرة حسنة بها اسواق ومتاجر

دمر : Ms. (5) — شها : Ms. (4) — وبش : Ms. (3) — من : Ms. (2) — بنا : Ms. (1)  
 دمر : Ms. (6)



ترعة<sup>(1)</sup> بالقينة على خمسة عشر ميلا من منية غزال وهي كثيرة البساتين متصلة  
العمارات

دار البقر قرية من اعمال مصر  
قرية المعتمدية من اعمال مصر  
متبول قرية من اعمال مصر عامرة وبها سوق  
سخا قرية من اعمال مصر  
محلة صرت قرية من اعمال مصر  
منوف العليا قرية من اعمال مصر عامرة ولها اقليم معمر وبها غلات وخير كثير  
سكاب قرية من اعمال مصر حسنة عامرة محدقة الخيرات متصلة العمارات  
الحلة الكبرى بلد كبيرة من اعمال مصر ذات اسواق عامرة وتجارات وخيرات  
شاملة

صنهور<sup>(2)</sup> قرية من اعمال مصر على خمسة واربعين ميلا من الحلة  
سندفة<sup>(3)</sup> قرية من اعمال مصر جميلة جليلة كثيرة الفواكه والنعم  
محلة الداخل قرية حسنة من اعمال مصر بها بساتين وجنات  
انقاش جزيرة في ارض اعمال مصر وكذلك انبابة<sup>(4)</sup> وهما مدينتان بين شطى  
النيل

اخصاص قرية حسنة من اعمال مصر وبها بساتين وجنان  
ذروة قرية من اعمال مصر  
ام دينار قرية من اعمال مصر  
اشمن جريس<sup>(5)</sup> قرية من اعمال مصر كثيرة العمارات والبساتين

Ms. : (1) ترعت — Ms. : (2) صنهور — Ms. : (3) سندبة — Ms. : (4) يباه — Ms. : (5)

جريس<sup>(1)</sup> مدينة حسنة على اقليم كبير جليل وبها تجارات كثيرة وعمارات وكروم  
واشجار

رمال الصنيم قرية من اعمال مصر وبها اية وهو انه اذا اخذ العظم ودفن بهذه  
الرملة عشرة ايام عاد حجرا صلدا<sup>(2)</sup>  
ابو يخنس<sup>(3)</sup> قرية كبيرة من اعمال مصر عامرة بها سوق وبساتين وغراس  
ترنوط قرية من اعمال مصر عامرة متحضرة وبها سوق وتجار مياسير ومعدن النطرون  
الجيد ومنه يحمل الى جميع البلاد  
بستامة قرية من اعمال مصر  
شابور من اعمال مصر قرية جامعة  
محلة السيرة قرية من اعمال مصر  
دنشال<sup>(4)</sup> قرية من اعمال مصر  
قرطسا<sup>(5)</sup> قرية من اعمال مصر  
سوق ابي منا قرية من اعمال مصر  
قرنفيل قرية من اعمال مصر  
كريون قرية من اعمال مصر  
الصير قرية من اعمال مصر  
جزيرة بيار من اعمال مصر  
منوف الصغرى قرية من اعمال مصر  
ببيج قرية من اعمال مصر  
قليب العمال قرية من اعمال مصر

Ms. : (1) ريسال — Ms. : (2) طدا — Ms. : (3) ابي يخنس — Ms. : (4) خريش — Ms. : (5)



صاه قرية من اعمال مصر  
 محلة شكلا قرية من اعمال مصر  
 اصطافية على عشرين ميلا من صاه من الضفة الشرقية  
 محلة العلوى على خمسة عشر ميلا من اصطافية وهى كبيرة ذات بساتين وضياع  
 سرنبي قرية عامرة من اعمال مصر  
 فوة قرية من اعمال مصر على خمسة عشر ميلا من محلة العلوى كثيرة الفواكه  
 والخصب واسواق وتجارات  
 الراهب من اعمال مصر  
 سنديون قرية من اعمال مصر باخر جزيرة الراهب  
 سمديسى قرية من اعمال مصر  
 الحافر قرية من اعمال مصر على عشرين ميلا من سمديسى  
 نطوبس الرمال قرية من اعمال مصر  
 الجديدة<sup>(1)</sup> قرية من اعمال مصر على خمسة عشر ميلا من الحافر عامرة  
 رشيد بلد من اعمال مصر وهى متحضرة وبها سوق وتجار ومزارع وغلات  
 وبقول ونخل وانواع من الفواكه ومن الحيتان وضروب السمك من البحر الملح والنيل  
 كثير وبها يصاد الدليس<sup>(2)</sup> ويملحونه ويحمل الى كل الجهات  
 بحر القلزم هو بحر الحجاز وهو نهر في ذاته وفيه جبال عادية فوق الماء وارض هذا  
 البحر متنوعة ذات اجمار وشعب لا يعرفها الا الربانيون الحزاة ولذلك لا يسار فيه الا نهارا  
 لكسرة معاطبه والقلزم مدينتان خراب على تسعين ميلا من مصر واليهما ينسب بحر  
 القلزم

الدليس : Ms. (2) — الجديدة : Ms. (1)

فاران قرية صغيرة على اربعين ميلا من القلزم يسكنها بعض الاعراب وفيه غرق  
 فرعون

الطور بلد على جبل بقرب بحر القلزم وباعلا الجبل مسجد وله بر ماء ناشعة  
 المصدف مكان بقرب الطور على ساحل البحر حسن يصاد به اللولو  
 ايلة بلد صغيرة على ساحل البحر بقرب الطور على خمس مراحل من مدين



Aswān<sup>(1)</sup> est une petite localité de la marche de Nubie, la dernière de la Haute-Égypte supérieure. Elle est florissante, abondante en grains, en fruits et en légumes, et la vie est à bon marché.

Ses environs subissent parfois les incursions des cavaliers nègres nommés al-Balin<sup>(2)</sup>, qui prétendent être des Grecs chrétiens; ceux-ci nomadisent dans la région qui s'étend entre le pays des Budja et l'Abysinie, sans se fixer nulle part.

Une mine d'émeraudes<sup>(3)</sup> se trouve au pied d'une montagne proche d'Aswān, en plein désert, loin des parties cultivées; il n'existe dans l'univers aucune mine d'émeraudes autre que celle-ci. En cet endroit-là également, on voit une mine d'or.

Les habitants boivent de l'eau des puits.

La plupart d'entre eux sont des chercheurs d'argent et d'or et la partie la plus nette de leurs ressources vient de là. Ces mines sont situées dans le mont Būrīs, à quatre jours de . . . . .<sup>(4)</sup> et à quinze d'Aswān.

Les Oasis<sup>(5)</sup> intérieures sont aujourd'hui désertes et inhabitées.

Les Oasis extérieures sont florissantes et les villages y sont nombreux, habités par une population mélangée. Elles sont situées entre le territoire

<sup>(1)</sup> Idrīsī, p. 21; *Matériaux*, p. 15; MAKRIZI, III, p. 280; YA'KUBI, trad. Wiet, p. 189.

<sup>(2)</sup> De Goeje estime qu'il faut voir dans ce nom une survivance du nom des «Blemmyes».

<sup>(3)</sup> Ce dernier paragraphe est écrit en marge, et nous n'avons pu en trouver la source. Il n'y a aucune lacune dans le manuscrit, mais on lit ici un pronom féminin, relatif probablement à une localité citée précédemment et que nous n'avons aucun moyen d'identifier. Le mont Būrīs est inconnu par ailleurs.

<sup>(4)</sup> Cf. YA'KUBI, trad. Wiet, p. 188.

<sup>(5)</sup> Idrīsī, p. 41-43. Il faut noter que les manuscrits d'Idrīsī intervertissent «intérieures» et «extérieures» mais qu'une correction marginale est faite dans l'un d'eux, conforme au présent texte (voir la trad., p. 50, n. 1). — Cf. *Matériaux*, p. 219; MAKRIZI, IV, p. 113-121; YA'KUBI, trad. Wiet, p. 187.

Aswān fait partie du premier climat. Ici commence la description du deuxième climat: d'abord les Oasis, puis les villes de la Haute-Égypte, situées au sud de Dahrūt, et citées en principe du nord au sud le long du Nil, puis du sud au nord le long du Bahr Youssef.

A la fin du climat, une notice sur le Muḳaṭṭam et sur 'Aidhāb.

égyptien et le Soudan et sont connues sous le nom de pays de Santariya. C'est là que se trouve le mont de Goliath le Berbère.

'Alsānī<sup>(1)</sup> est une montagne dans les Oasis intérieures; elle renferme une mine, d'où l'on extrait du lapis-lazuli, qu'on transporte en Égypte.

Al-Djifār<sup>(2)</sup> est un village proche des Oasis, entouré de palmiers et pourvu d'eau douce.

Al-Ḳais<sup>(3)</sup> est une localité très connue, au bord du Nil; on y cultive de la canne à sucre et des palmiers.

Dahrūt<sup>(4)</sup> est une localité proche d'al-Ḳais.

Minyat Ibn al-Ḳhaṣīb<sup>(5)</sup> est une localité très connue au bord du Nil; elle est prospère, entourée de jardins et de lieux de plaisance.

Al-Ashmūnain<sup>(6)</sup> est une localité prospère, proche d'al-Minya, entourée de jardins.

Būṣīr<sup>(7)</sup> est entourée de jardins qui se touchent.

On dit que la plupart des sorciers de Pharaon en étaient originaires; on y trouve encore actuellement des personnes qui s'occupent de magie.

Anṣinā<sup>(8)</sup> est une ville, sur la rive orientale du Nil, de construction ancienne, pourvue de beaux vergers et de lieux de plaisance. Elle était connue sous le nom de Ville des Sorciers, car c'est d'elle que Pharaon les fit venir au jour de la Conférence<sup>(9)</sup>.

<sup>(1)</sup> Idrīsī, p. 43. — Inconnu par ailleurs.

<sup>(2)</sup> Idrīsī, p. 44. — Inconnu par ailleurs. De Goeje fait observer qu'il ne faut pas «confondre ce pays avec celui du même nom qui se trouve entre l'Égypte et la Syrie» (*Matériaux*, p. 70).

<sup>(3)</sup> Idrīsī, p. 45; *Matériaux*, p. 160; MAKRIZI, III, p. 309; YA'KUBI, trad. Wiet, p. 185.

<sup>(4)</sup> Idrīsī, p. 45.

<sup>(5)</sup> Idrīsī, p. 45; *Matériaux*, p. 206; MAKRIZI, III, p. 312.

<sup>(6)</sup> Dans le texte: Ashmūnī, comme dans Idrīsī, p. 45. — Cf. *Matériaux*, p. 20; MAKRIZI, IV, p. 132; YA'KUBI, trad. Wiet, p. 186.

<sup>(7)</sup> Idrīsī, p. 45. La localité a disparu (cf. *Matériaux*, p. 55-56).

<sup>(8)</sup> Idrīsī, p. 45; *Matériaux*, p. 26; MAKRIZI, III, p. 307; YA'KUBI, trad. Wiet, p. 186.

<sup>(9)</sup> *Coran*, xx, 60-78.



Al-Nadjāsiya <sup>(1)</sup> est un village proche d'Anšinā, à l'est du Nil, prospère, très peuplé, fertile en blé et en fruits.

Minsāra <sup>(2)</sup> est un village, sur la rive occidentale du Nil, en face d'Anšinā; on y trouve des palmiers, des champs ensemencés, des pâturages et des vergers.

Ṭahā <sup>(3)</sup> est une localité au-dessous d'al-Ashmūnain, où l'on fabrique des tentures de laine et des manteaux.

On dit que le crocodile est nuisible sur la rive d'al-Ashmūnain, et inoffensif sur celle d'Anšinā, à cause d'un talisman.

Al-Marāgha <sup>(4)</sup> se trouve sur la rive ouest du Nil, presque en face d'Anšinā.

Tizmant <sup>(5)</sup>, à l'ouest du Nil, à proximité de Marāgha, est très riche en vergers et en cultures.

Ṣūl <sup>(6)</sup> est un village proche de Tizmant, à l'embouchure du canal d'al-Manhā <sup>(7)</sup>; il est vaste, pourvu de marchés et entouré de palmiers.

Akhmīm <sup>(8)</sup> est une localité située sur la rive orientale et à environ deux milles du Nil. Les cultures y sont très riches; on y voit des palmiers et l'on y cultive de la canne à sucre.

On y trouve le monument appelé *birbā*; c'est un temple fondé par Hermès le Grand avant le déluge. Il avait prévu par son art que la population du monde devait périr, mais il ne connaissait pas d'une façon

<sup>(1)</sup> Idrīsi, p. 45; un manuscrit donne: *al-Nadjāshiya* (MILLER, II, p. 187). Inconnu.

<sup>(2)</sup> Idrīsi, p. 46. — Telle est la leçon d'un des manuscrits d'Idrīsi; de Goeje adopte *Masnāwa*, et Jaubert lit (p. 124): *Minsāwa*. — Inconnu. Il est un peu excessif de penser à Mansafis (MILLER, II, p. 187).

<sup>(3)</sup> Idrīsi, p. 46; *Matériaux*, p. 117; YA'KUBI, trad. Wiet, p. 186.

<sup>(4)</sup> Idrīsi, p. 46. — Inconnu. Miller pense à la localité de ce nom près d'Akhmīm (II, p. 187).

<sup>(5)</sup> Idrīsi, p. 46. — Voir une note à la localité suivante. — Des manuscrits d'Idrīsi donnent: *Barmant* et *Tarmant* (MILLER, II, p. 187).

<sup>(6)</sup> Idrīsi, p. 46; *Hist. du Nil*, p. 174. — Miller pense à Imshūl.

<sup>(7)</sup> Le Bahr Youssef. — Il est curieux de constater qu'on trouve Tizmant et Ṣūl, assez proche l'un de l'autre, bien plus au nord, dans la province de Béni-Souef.

<sup>(8)</sup> Idrīsi, p. 46-47; *Matériaux*, p. 6; MAKRIZI, IV, p. 134; ANDALUSI, p. 77; YA'KUBI, p. 187.

certaine la cause de cette destruction, si ce serait par le feu ou par l'eau. Il construisit donc des édifices en terre, incombustibles. Lorsqu'ils furent secs, il fit choix d'images et de représentations scientifiques, qu'il y fit sculpter, en disant: « Si le monde périrait par le feu, ces temples résisteront à l'incendie et même ils y gagneront; les sculptures rappelant les diverses sciences y subsisteront éternellement, lisibles pour la postérité. » Il bâtit ensuite des temples en pierre, en y faisant sculpter la totalité des sciences indispensables, ajoutant: « Si l'univers doit disparaître par l'eau, les édifices en terre se dissoudront, mais ceux de pierre seront conservés avec les sciences qui y sont gravées, puisque l'eau ne leur aura causé aucun dommage. » Lorsque le déluge arriva, les temples en terre furent dissous et les monuments en pierre durèrent, gardant les sciences qui y étaient sculptées.

Ces temples sont nombreux: on cite ceux d'Isnā, de Dandara <sup>(1)</sup> et d'Akhmīm, ce dernier étant le plus solidement construit et le plus remarquable par la beauté de ses sculptures. On y voit la représentation de quelques astres, des arts et de toutes les sciences.

Zamākhir <sup>(2)</sup> est une localité sur la rive occidentale du Nil, près de l'embouchure du canal d'al Manhā, remarquable par la beauté de ses édifices et par l'abondance de ses vergers.

Ṭailamūn <sup>(3)</sup> est une montagne qui fait obstacle au cours du Nil, en direction de l'ouest à l'est; l'eau s'y précipite avec des efforts impétueux et en sort avec une violente pression. La navigation y est presque impossible pour les vaisseaux qui vont de Miṣr à Aswān et ailleurs.

Tānsif <sup>(4)</sup>, qui est le mont des oiseaux, est une montagne située à deux étapes du mont d'al-Ṭailamūn. Sur son flanc se trouve un endroit à surface lisse, où l'on voit une fente étroite. C'est là qu'un certain jour de l'année se rassemblent les oiseaux nommés Būḳir; ce sont des oiseaux aquatiques au plumage versicolore. Chaque oiseau s'approche, passe la

<sup>(1)</sup> Cf. YA'KUBI, trad. Wiet, p. 187; MAKRIZI, IV, p. 112; *Matériaux*, p. 93.

<sup>(2)</sup> Idrīsi, p. 47; *Matériaux*, p. 63.

<sup>(3)</sup> Idrīsi, p. 47; *Matériaux*, p. 123. — Identifié par Miller (II, p. 186) avec le *Djabal Abu Feda*.

<sup>(4)</sup> Idrīsi, p. 48; *Matériaux*, p. 65.



tête à travers la fente, la retire et s'en va. Chacun agit ainsi jusqu'à ce que la fente se referme sur l'un d'entre eux. La troupe se disperse alors, et l'oiseau pris reste suspendu; il meurt et ses membres tombent en lambeaux.

Asyūt<sup>(1)</sup> est une localité sur la rive occidentale du Nil, grande et prospère, renfermant toutes sortes de bonnes choses.

Kift<sup>(2)</sup> est une localité de Haute-Égypte, située à une certaine distance du Nil, sur la rive orientale. Elle englobe une population dense, en majeure partie chiite, avec quelques descendants des Grecs.

On y cultive beaucoup de légumes, tels que la rave et la laitue; on en extrait de l'huile avec laquelle on fabrique du savon. Ce savon, réputé pour sa pureté, est exporté à Miṣr et en d'autres régions.

Kūṣ<sup>(3)</sup> est une grande localité située sur la rive orientale et à une distance de sept milles du Nil. C'est une ville très peuplée, renommée pour son importance commerciale, la qualité<sup>(4)</sup> de son climat et la fertilité de son sol. Les habitants ont le teint jaune et les étrangers qui viennent s'y établir échappent difficilement aux maladies.

Damāmīl<sup>(5)</sup> est une localité à l'est et à sept milles du Nil, pourvue de beaux édifices et douée d'un excellent climat. Ses habitants sont de races mélangées, mais les Maghrébins y sont en majorité. L'étranger est très honoré chez eux.

Kamūla<sup>(6)</sup> est une localité située à cinq milles de Damāmīl, renfermant une population dense. On y récolte toutes sortes de fruits, d'une qualité qu'on ne trouve nulle part ailleurs; c'est ainsi qu'un grain (de raisin) atteint le poids d'une *ūkiya*. On y trouve des bananes d'une taille inaccoutumée.

<sup>(1)</sup> Idrīsī, p. 48; *Matériaux*, p. 16; YA'KUBI, trad. Wiet, p. 186.

<sup>(2)</sup> Idrīsī, p. 48-49; *Matériaux*, p. 148; MAKRIZI, IV, p. 106; YA'KUBI, trad. Wiet, p. 188.

<sup>(3)</sup> Idrīsī, p. 49; *Matériaux*, p. 155; YA'KUBI, trad. Wiet, p. 188; MAKRIZI, IV, p. 122.

<sup>(4)</sup> Idrīsī déclare que son climat est pestilentiel, ce qui s'accorde mieux avec la phrase finale.

<sup>(5)</sup> Idrīsī, p. 49.

<sup>(6)</sup> Idrīsī, p. 49; *Matériaux*, p. 126.

Burrān<sup>(1)</sup> est une montagne qui s'étend de la région en face d'Asyūt jusqu'à Kamūla et où l'on trouve les trésors des descendants d'Ashmūn, fils de Miṣrāim.

Isnā<sup>(2)</sup> est une localité antique, près du Nil, fondée par les anciens Égyptiens. Elle est entourée de champs ensemencés et de vergers; le raisin s'y trouve en grande quantité; on en fait du raisin sec.

On y voit des ruines d'édifices bâtis par les anciens Égyptiens.

Armant<sup>(3)</sup>, localité située sur la rive orientale du Nil, en est éloignée d'un jour de marche. Elle fut fondée par les anciens Égyptiens. Elle possède de nombreux vergers, tels qu'on n'en trouve d'aussi beaux en aucun pays du monde.

Al-Bahnasā<sup>(4)</sup> est une localité située sur la rive occidentale du canal nommé al-Manhā, à sept étapes de Miṣr; elle est prospère et très peuplée. On y tisse des pièces d'étoffes, des manteaux et des tentures.

Ahnās<sup>(5)</sup> est une petite localité proche du canal d'al-Manhā, renfermant une population très dense; elle est pourvue de marchés et c'est un centre commercial où les bénéfices sont avantageux; l'on s'y rend donc volontiers.

Al-Lāhūn<sup>(6)</sup> est une localité située à deux étapes d'Ahnās.

Dallās<sup>(7)</sup> est une localité prospère et importante, à l'est du Nil, où l'on fabrique des mors de cheval dits de Dallās, et où l'on tisse de la soie<sup>(8)</sup>. C'est une ville antique, fondée par les anciens Égyptiens.

<sup>(1)</sup> Idrīsī, p. 49-50. — Inconnu par ailleurs.

<sup>(2)</sup> Idrīsī, p. 50; *Matériaux*, p. 14; MAKRIZI, IV, p. 124; YA'KUBI, trad. Wiet, p. 189.

<sup>(3)</sup> Idrīsī, p. 50; *Matériaux*, p. 7.

<sup>(4)</sup> Idrīsī, p. 50; *Matériaux*, p. 51; MAKRIZI, IV, p. 126; YA'KUBI, trad. Wiet, p. 186.

<sup>(5)</sup> Idrīsī, p. 51; *Matériaux*, p. 28; MAKRIZI, IV, p. 126; YA'KUBI, trad. Wiet, p. 186.

<sup>(6)</sup> Idrīsī, p. 51.

<sup>(7)</sup> Idrīsī, p. 51; *Matériaux*, p. 90; YA'KUBI, trad. Wiet, p. 185.

<sup>(8)</sup> Idrīsī parle d'ouvrages en fer, *ḥadīd*, au lieu de *ḥarīr*, mais le verbe «tisser» nous empêche de revenir au texte original.



Tarba<sup>(1)</sup> et Sumustā sont des localités situées à deux milles du Nil. Elles sont prospères; on y cultive de la canne à sucre et l'on y fabrique du sucre et du candi en quantité suffisante pour en pourvoir presque toute l'Égypte.

Al-Mukattām<sup>(2)</sup> est une montagne qui s'étend de Miṣr à la région d'Aswān. Elle contient de l'or en abondance et son sol, traité avec art, produit de l'or pur. Des parties de la chaîne atteignent les régions de l'Égypte proches d'al-Ḳulzum, et s'avancent dans la mer salée qui s'appelle mer du Ḥidjāz.

On y trouve des trésors cachés par les anciens rois, ainsi qu'un grand nombre des temples et des merveilles des prêtres (de l'ancienne Égypte).

Dans la région qui avoisine la mer se trouve le Mont Rond, inaccessible à cause du poli de sa surface. On y voit, dit-on, des trésors considérables enfouis par le grand-prêtre Mukattām, qui a donné son nom à la montagne. On y découvre également des trésors appartenant aux rois d'Égypte, pierreries, terre propre à la fabrication de l'or, statues extraordinaires, et idoles figuratives des astres.

'Aidhāb<sup>(3)</sup> est une localité sur le bord de la mer d'al-Ḳulzum, dont les habitants sont noirs et qui n'est pas très peuplée. C'est là que s'effectue le passage vers Djidda.

Deux gouverneurs y résident, l'un nommé par le chef des Budja, l'autre par le souverain de l'Égypte; ils partagent par moitié les revenus de la région. Le préfet égyptien a la mission d'assurer l'importance des vivres destinées à la subsistance de la ville; le chef des Budja assume la défense du territoire contre les Abyssins.

On perçoit à 'Aidhāb une taxe sur les pèlerins arrivant du Maghrib.

Alexandrie<sup>(4)</sup> est une ville considérable sur les bords de la mer Méditerranée, bâtie par Alexandre. On y remarque d'étonnants vestiges et des

<sup>(1)</sup> Idrīsī, p. 51, où on lit : *Tarfa*. Cette dernière localité semble avoir disparu.

<sup>(2)</sup> Idrīsī, trad. Jaubert, I, p. 130-131; *Matériaux*, p. 197; PRINCE OMAR TOUSSOUN, p. 154.

<sup>(3)</sup> Idrīsī, trad. Jaubert, I, p. 133; *Matériaux*, p. 128; MAKRIZĪ, III, p. 299.

<sup>(4)</sup> Idrīsī, p. 138; *Matériaux*, p. 9; MAKRIZĪ, III, p. 70; PRINCE OMAR TOUSSOUN, p. 106; YAKUBI, trad. Wiet, p. 196.

La description du troisième climat commence par les deux métropoles, Alexandrie et Fustāt, puis se continue par les localités situées sur les différentes routes fluviales (Nil et canaux), vers le sud et vers le nord.

monuments encore subsistants, qui attestent l'autorité et la puissance de leur fondateur et témoignent de sa maîtrise. Elle est entourée de fortes murailles et possède de belles plantations d'arbres. Ville de vaste étendue, elle est très peuplée, très commerçante, pleine de hauts édifices et d'agréables demeures; ses avenues sont larges, les voûtes de ses constructions solides; les maisons sont pavées de marbre; les marchés y sont immenses et les champs de culture très productifs.

On y remarque le phare<sup>(1)</sup>, qui n'a pas son pareil dans le monde, bâti du plus dur granit, dont les assises sont jointoyées avec du plomb, si bien que l'ensemble est indissoluble. Sa hauteur est de trois cents coudées. On assure que son fondateur est celui qui a construit les Pyramides.

On voit aussi à Alexandrie les deux obélisques. Ce sont deux pierres de forme quadrangulaire, plus minces à leur sommet qu'à leur base. On y lit l'inscription suivante en caractères syriaques; «Moi, Ya'mur, fils de Shaddād, j'ai fondé cette ville, au moment où la vieillesse ne se voyait pas sur ma personne, où ma mort n'était pas prochaine, où mes cheveux n'étaient pas blancs, alors que les hommes ne connaissaient d'autre maître que Ya'mur, fils de Shaddād<sup>(2)</sup>. J'ai dressé les colonnes de la ville, j'ai fait couler ses canaux, j'ai planté ses arbres; je voulais ainsi surpasser les princes qui m'y avaient précédé, en y fondant des édifices admirables. J'ai donc envoyé une expédition vers la montagne rouge de Barīm<sup>(3)</sup>, d'où ces deux pierres ont été extraites.»

Alexandrie est une des métropoles de l'Égypte.

Près d'Alexandrie, en mer, on pêche un poisson rayé, agréable au goût, qui se nomme al-'Arūs. Celui qui mange de ce poisson, sans boire un peu de vin ou sans manger un peu de miel, fait de mauvais rêves.

<sup>(1)</sup> De Goeje traduit : «où les hommes ne savaient pas ce que c'est qu'un maître.» Avec notre manuscrit, nous sommes obligés de nous conformer à la traduction de Jaubert (I, p. 299).

<sup>(2)</sup> Dans le ms. : *Riyim*. Jaubert lit : *Tarim*. De Goeje : *Badim*. Cf. MAKRIZĪ, III, p. 133.

<sup>(3)</sup> Cf. ANDALUSĪ, p. 70, 227, 236.



La ville de Fustāt<sup>(1)</sup> c'est Miṣr; elle reçut ce nom de Miṣrāim, fils de Hām, fils de Noé, qui en fut jadis le fondateur. L'ancienne capitale était 'Ain Shams; mais, lorsque 'Amr, fils d'al-'Āṣ, s'en empara, il délimita des quartiers autour de sa tente et l'on y bâtit des demeures. Elle porte en grec le nom de Babylone<sup>(2)</sup>.

Elle est, de nos jours, très considérable sous le rapport des constructions et de l'abondance des commodités de la vie; son sol est gras.

Ses habitants sont d'une grande élévation de pensée et leur finesse est universelle.

Au sud de Fustāt est le village de Manf, et au nord de la ville dite 'Ain Shams; ce sont deux bourgades proches du mont Muḳaṭṭam. On dit que c'étaient des lieux de plaisance du Pharaon. Non loin de là, au sommet du Muḳaṭṭam, est un endroit connu sous le nom de Tannūr Fir'ūn (fournaise du Pharaon).

A Fustāt et en aval de la localité, le crocodile est inoffensif, il ne s'en approche même pas, par l'effet d'un talisman qui se trouve au Nilotre. Il en est de même sur la rive de Būṣīr, tandis que cet animal est nuisible sur la rive d'al-Ashmūnain, bien qu'il n'y ait entre ces deux points que la largeur du fleuve. Rien n'est plus surprenant.

A 'Ain Shams croît le baume. On ne connaît pas au monde d'autre lieu qui produise cette plante.

Au-dessous de Fustāt est le domaine de Sirū.

Au territoire de Fustāt touche le mont Muḳaṭṭam, où se trouvent les tombeaux de divers prophètes.

A six milles on voit les deux pyramides, qui sont célèbres.

A l'ouest de Fustāt, et à deux étapes de cette ville, se trouve Madīnat al-Faiyūm<sup>(3)</sup>, qui est grande est entourée de vergers. Elle est bâtie sur les deux rives du canal d'al-Lāhūn. On raconte que ce fut Joseph qui la fonda en soixante-dix jours. Or, le roi al-'Azīz, qui lui avait concédé cette terre, lui déclara : «Voilà un ouvrage de mille jours (*alf yawm*).» C'est

<sup>(1)</sup> Idrīsī, p. 141-142, 145-149; *Matériaux*, p. 139; PRINCE OMAR TOUSSOUN, p. 89; YA'KUBI, trad. Wiet, p. 184.

<sup>(2)</sup> Ms. *Baltūna*; dans Idrīsī : *Banbalūna*.

<sup>(3)</sup> *Matériaux*, p. 142; MAKRIZI, IV, p. 143; YA'KUBI, trad. Wiet, p. 185.

de là que vient le nom d'al-Faiyūm. Il y creusa le canal d'al-Manhā. Le climat du Faiyūm est pestilentiel. Le canal d'al-Lāhūn fut creusé par Joseph, qui y fit venir l'eau. Il creusa également le canal de Tanhamat<sup>(1)</sup>. Enfin il y créa quatre-vingt-cinq villages.

Quand on part de Miṣr pour se rendre en Haute-Égypte, on va de Fustāt à Minyat al-Sūdān, hameau important, entouré de cultures, sur la rive occidentale du Nil à une distance de quinze milles.

De là à Bayād, il y a vingt milles; c'est un bourg prospère.

De là à al-Himā-le-Petit, il y a vingt milles.

De là à al-Himā-le-Grand, sur la rive orientale, il y a vingt milles; c'est un village prospère, entouré de vignobles et de plantations de canne à sucre.

De là à Dair al-Butūm<sup>(2)</sup>, sur la rive orientale, vingt milles.

Puis au village de Tūnis, sur la rive occidentale, deux milles.

De là à Dahrūt, sur la rive occidentale du Nil, une demi-étape.

De là à al-Ḳais, ville ancienne, vingt milles.

Quant aux pays<sup>(3)</sup> se trouvant au nord de Miṣr, celui qui veut s'y rendre en descendant le Nil, atteint al-Minya<sup>(4)</sup>, à cinq milles.

Il va de là à Minyat al-Ḳāid<sup>(5)</sup>, pays prospère, riche en champs cultivés et en pâturages, cinq milles.

De là à Shubrā, cinq milles.

De là à Baisūs<sup>(6)</sup>, cinq milles.

De là à al-Sharaḳāniya, cinq milles.

De là à Sarūdas<sup>(7)</sup>, cinq milles.

De là à Shalaḳān, grande et prospère, cinq milles.

<sup>(1)</sup> MAKRIZI, IV, p. 158.

<sup>(2)</sup> Idrīsī : *Dair al-Faiyūm*. — Cette localité, la suivante et les précédente, me sont inconnues.

<sup>(3)</sup> Itinéraire de Miṣr, par le Nil, vers le Delta, jusqu'à la division en deux branches. Cf. GUEST, p. 950 et la carte; PRINCE OMAR TOUSSOUN, pl. VII; *Branches du Nil*, p. 95.

<sup>(4)</sup> Inconnu.

<sup>(5)</sup> Il faut lire comme dans Idrīsī : *Madīnat al-Ḳā'id* la «ville fondée par le ḳā'id Djawhar», c'est-à-dire le Caire.

<sup>(6)</sup> Actuellement : *Bāsūs*.

<sup>(7)</sup> Idrīsī : *Sarūt*. — Inconnu.



De là à Zufaita <sup>(1)</sup>, quinze milles.

Shaṭanūf <sup>(2)</sup> est un joli village dans la région septentrionale de l'Égypte.

Shanawān <sup>(3)</sup> est un village d'Égypte, à vingt-cinq milles de Shaṭanūf.

Shāmīyīn <sup>(4)</sup> est un village d'Égypte, sur la rive orientale du Nil, à dix milles de Shanawān, où l'on cultive la canne à sucre et le concombre, qui forment le plus clair de ses revenus. En face, sur la rive occidentale, se trouve Tant, joli village, qui produit beaucoup de céréales, à quinze milles de Shanawān.

Kushairat al-Abrādī <sup>(5)</sup> est un village situé à douze milles de Shanawān; les cultures y sont très abondantes et la terre productive.

Shīridja <sup>(6)</sup> est située en face de Kushairat al-Abrādī.

Al-Ṣālihiya <sup>(7)</sup> est un village situé à dix milles de Shīridja, en descendant (le Nil); c'est une localité très populeuse, dont le territoire est couvert de constructions et de terrains cultivés. Ses habitants sont voleurs.

Al-'Atf <sup>(8)</sup> est un village florissant sur la rive occidentale (du Nil).

Dadjwa <sup>(9)</sup> est un petit village situé à quinze milles d'al-'Atf, pourvu de marchés prospères, de terrains cultivés qui se touchent, très florissant.

Minyat al-'Attār <sup>(10)</sup> est un petit village pourvu de vergers, de jardins et de champs ensemencés.

<sup>(1)</sup> Actuellement : *Zufaita Shalakān*.

<sup>(2)</sup> IDRISI, p. 149; *Hist. du Nil*, p. 72; PRINCE OMAR TOUSSOUN, p. 176; *Matériaux*, p. 114.

Itinéraire de Shaṭanūf, sur le Nil, branche de Damiette (GUEST, p. 962, 968; *Branches du Nil*, p. 96).

<sup>(3)</sup> Actuellement : *Shanawāy* (IDRISI, p. 150).

<sup>(4)</sup> Inconnu (IDRISI, p. 150).

<sup>(5)</sup> IDRISI, p. 150. — Inconnu.

<sup>(6)</sup> IDRISI, p. 150 : *Shiyūdjā*. — Actuellement : *Asridja*.

L'ouvrage constituant un dictionnaire, sans se préoccuper des itinéraires, chaque nom est suivi de sa situation générale, sous cette forme, que nous supprimons dorénavant : «village d'Égypte».

<sup>(7)</sup> IDRISI, p. 151.

<sup>(8)</sup> IDRISI, p. 151.

<sup>(9)</sup> IDRISI, p. 151; PRINCE OMAR TOUSSOUN, p. 85.

<sup>(10)</sup> IDRISI, p. 151. — Actuellement : *Mit al-'Attār*.

Shumairif <sup>(1)</sup> est un village situé à dix milles d'al-'Atf, sur la rive occidentale.

Antūhī <sup>(2)</sup> est un village en face de Minyat al-'Attār.

Banha al-'Asal <sup>(3)</sup> est un village important, riche en arbres et en fruits; en face de lui se trouve le village qui a le même surnom, Minyat al-'Asal.

Atrib <sup>(4)</sup> est un village prospère sur la rive orientale.

Djandjar <sup>(5)</sup> est un village sur la rive orientale, fertile en céréales et abondamment pourvu de terrains ensemencés.

Minyat al-Hūfi <sup>(6)</sup> village en face de Djandjar, sur la rive occidentale. Sanīt <sup>(7)</sup>.

Warwara <sup>(8)</sup>, très peuplé, abondant en pâturages.

Le village d'al-Hammādiya <sup>(9)</sup>.

Le village de Ṣaḥrashat le Grand <sup>(10)</sup>.

Ṣaḥrashat le Petit <sup>(11)</sup> est un village peuplé, où l'on cultive toutes sortes de grains et notamment du sésame.

Minyat <sup>(12)</sup> Ghamr est un village pourvu d'un marché; c'est un centre commercial.

<sup>(1)</sup> IDRISI, p. 151 : *Shumairak*. — C'est à M. Guest que revient le mérite d'avoir pensé à une métathèse et d'avoir identifié ce village avec la localité actuelle de *Mushairif*.

<sup>(2)</sup> IDRISI, p. 151.

Yakūt a lu : *Atnūha*, mais ajoute que la localité est également connue sous le nom de Masdjid al-Khaḍr, qui lui est resté (PRINCE OMAR TOUSSOUN, p. 65).

<sup>(3)</sup> IDRISI, p. 152; PRINCE OMAR TOUSSOUN, p. 71; *Matériaux*, p. 50; *Branches du Nil*, p. 96-97; YA'KUBI, trad. Wiet, p. 193.

<sup>(4)</sup> IDRISI, p. 152; *Matériaux*, p. 3; MAKRIZI, III, p. 193; PRINCE OMAR TOUSSOUN, p. 15, 65; YA'KUBI, trad. Wiet, p. 193.

<sup>(5)</sup> IDRISI, p. 152. — Actuellement : *Djamdjara*.

<sup>(6)</sup> IDRISI, p. 152. — Actuellement : *Mit al-Hūfiyīn*.

<sup>(7)</sup> IDRISI, p. 152. — Actuellement : *Isnīt*.

<sup>(8)</sup> IDRISI, p. 152 : *Warūra*.

<sup>(9)</sup> IDRISI, p. 152 : *al-Hammāriya*. — Inconnu.

<sup>(10)</sup> IDRISI, p. 152; PRINCE OMAR TOUSSOUN, p. 169. — Actuellement : *Ṣaḥradjat*.

<sup>(11)</sup> IDRISI, p. 152.

<sup>(12)</sup> IDRISI, p. 152; PRINCE OMAR TOUSSOUN, p. 162. — Actuellement : *Mit Ghamr*.



Minyat Zifta <sup>(1)</sup> est un village situé sur la rive occidentale.

Minyat al-Firān <sup>(2)</sup> est un village situé sur la rive occidentale, où l'on cultive le cumin, l'oignon et l'ail.

Daḳadūs <sup>(3)</sup> est un grand village situé sur la rive orientale, entouré de champs cultivés et de vergers; il s'y tient un marché tous les mercredis.

Minyat Fimās <sup>(4)</sup> est un beau village situé sur la rive orientale, dont le territoire est très productif et très fertile.

Hānūt <sup>(5)</sup> est un village situé sur la rive occidentale, pourvu d'eaux courantes, peuplé, et entouré de champs cultivés. La culture du lin y est florissante.

Minyat Ishnā <sup>(6)</sup> est un joli village.

Damsīs <sup>(7)</sup> est un village peuplé; il s'y tient un marché tous les samedis, très fréquenté par les commerçants.

Malidj <sup>(8)</sup> est un village peuplé, commerçant, où se tiennent des marchés.

Minyat 'Abd al-Malik <sup>(9)</sup> est un village très peuplé, très productif et très fertile.

Ṭanṭana <sup>(10)</sup>, sur la rive occidentale du canal, est pourvu de marchés productifs; les habitants vivent dans un état paisible et prospère.

Ṭaṭay <sup>(11)</sup> est un village situé à quinze milles de Ṭanṭana.

<sup>(1)</sup> IDRISĪ, p. 152; PRINCE OMAR TOUSSOUN, p. 193. — Actuellement : Zifta (*Matériaux*, p. 102).

<sup>(2)</sup> IDRISĪ, p. 152. — Inconnu.

<sup>(3)</sup> IDRISĪ, p. 153; PRINCE OMAR TOUSSOUN, p. 75.

<sup>(4)</sup> IDRISĪ, p. 153. — Inconnu.

<sup>(5)</sup> IDRISĪ, p. 153.

<sup>(6)</sup> IDRISĪ, p. 153. — Actuellement : Mit Ishnā.

<sup>(7)</sup> IDRISĪ, p. 153; *Matériaux*, p. 91; PRINCE OMAR TOUSSOUN, p. 20, 76. — Cité à nouveau plus loin. — Actuellement : Mit Damsīs.

<sup>(8)</sup> IDRISĪ, p. 153; PRINCE OMAR TOUSSOUN, p. 134.

Itinéraire par un canal situé à l'ouest de la branche de Damiette depuis Antūhī jusqu'à Mit Damsīs (GUEST, p. 964; *Hist. du Nil*, p. 171, 176; *Branches du Nil*, p. 97).

<sup>(9)</sup> IDRISĪ, p. 153. — Inconnu.

<sup>(10)</sup> IDRISĪ, p. 153 : *Ṭanṭa*, mais trois manuscrits donnent : *Ṭanṭana*. On lit *Ṭanta-ṭhanā* dans Yāḳūt (PRINCE OMAR TOUSSOUN, p. 180).

<sup>(11)</sup> IDRISĪ, p. 153 : *Ṭaṭā*; PRINCE OMAR TOUSSOUN, p. 182.

Al-Dja'fariya <sup>(1)</sup> est un village entouré de champs cultivés, très fertiles.

Le village de Bulūs <sup>(2)</sup>.

Sanṭa <sup>(3)</sup> est un village très peuplé.

Sunbāt <sup>(4)</sup> est un village très commerçant; on y cultive du lin.

Le village de Minyat Badr <sup>(5)</sup>.

Shanashā <sup>(6)</sup> est un village entouré d'arbres et de champs cultivés; il s'y trouve des pressoirs pour la canne à sucre.

Būhāt <sup>(7)</sup>, village très peuplé, pourvu de marchés.

Sinbās <sup>(8)</sup>, village bien peuplé.

Le village de Ṭanāḥ <sup>(9)</sup>.

Le lac d'al-Dhār <sup>(10)</sup> est contigu au lac de Tinnīs <sup>(11)</sup>; il est distant de la mer de trois milles. Il est grand, d'une vaste superficie.

Ḥiṣn al-Mā' <sup>(12)</sup> (Fort-de-l'eau) est une île dans le lac d'al-Dhār.

L'île de Tūna <sup>(13)</sup>.

L'île de Nabliya <sup>(14)</sup> est située dans la partie méridionale du lac de Tinnīs.

<sup>(1)</sup> IDRISĪ, p. 153.

<sup>(2)</sup> IDRISĪ, p. 153. — Inconnu.

<sup>(3)</sup> IDRISĪ, p. 153; PRINCE OMAR TOUSSOUN, p. 172.

<sup>(4)</sup> IDRISĪ, p. 153; *Matériaux*, p. 110; PRINCE OMAR TOUSSOUN, p. 172.

<sup>(5)</sup> IDRISĪ, p. 154. — Itinéraire sur la branche de Tinnīs, depuis Mit Damsīs. (GUEST, p. 972; *Hist. du Nil*, p. 262; *Branches du Nil*, p. 97). — Actuellement : Mit Badr Ḥalāwa.

<sup>(6)</sup> IDRISĪ, p. 154 : *Shanshā*.

<sup>(7)</sup> IDRISĪ, p. 154.

<sup>(8)</sup> IDRISĪ, p. 154; *Safnās*. — Inconnu.

<sup>(9)</sup> IDRISĪ, p. 154; *Matériaux*, p. 121.

<sup>(10)</sup> IDRISĪ, p. 154 : *le lac d'al-Zār*. — Le texte donne : Le lac d'al-Dhār est un village (*sic*) contigu....

<sup>(11)</sup> Cf. *Matériaux*, p. 35, 60; MAKRIZĪ, III, p. 194; PRINCE OMAR TOUSSOUN, p. 44, 183; ANDALUSĪ, p. 230; YĀ'KUBĪ, trad. Wiet, p. 194.

<sup>(12)</sup> IDRISĪ, p. 154.

<sup>(13)</sup> IDRISĪ, p. 154; *Matériaux*, p. 61; MAKRIZĪ, III, p. 216; PRINCE OMAR TOUSSOUN, p. 49, 189.

<sup>(14)</sup> IDRISĪ, p. 154.



Banā<sup>(1)</sup> est un joli village, entouré de vergers.

Būṣīr<sup>(2)</sup> est un village peuplé.

Rahl Djarrah<sup>(3)</sup> est un petit village, pourvu de cultures, très commerçant.

Samannūd<sup>(4)</sup> est situé à douze milles de Minyat Ibn Djarrah; c'est un joli village, peuplé, où l'on trouve à bon marché tout ce qui est nécessaire à la vie.

Sandafa<sup>(5)</sup> est un village situé à huit milles de Sammanūd.

Tha'bāniya<sup>(6)</sup> est un village situé à dix-huit milles de Sammanūd, peuplé, pourvu de marchés et entouré de cultures.

Minyat 'Assās<sup>(7)</sup>, village situé à douze milles d'al-Tha'bāniya, est d'une grande fertilité, produisant toutes sortes de cultures.

Djūdjar<sup>(8)</sup> est un village situé à douze milles de Minyat 'Assās.

Wīsh al-Ḥadjar<sup>(9)</sup> est un village situé à trente-six milles de Sammanūd; il est entouré de vergers et d'arbres.

Tarkhā<sup>(10)</sup> est un village situé à douze milles de Djūdjar.

Shuhā<sup>(11)</sup> est un petit village, peuplé, commerçant.

Le village de Maḥallat Damīna<sup>(12)</sup>.

<sup>(1)</sup> IDRISĪ, p. 155; *Matériaux*, p. 49; PRINCE OMAR TOUSSOUN, p. 17, 68; YA'KUBI, trad. Wiet, p. 193. — Itinéraire sur la branche de Damiette, depuis Mīt Damsīs (GUEST, p. 970; *Branches du Nil*, p. 97).

<sup>(2)</sup> IDRISĪ, p. 155; *Matériaux*, p. 53; PRINCE OMAR TOUSSOUN, p. 19, 74; YA'KUBI, trad. Wiet, p. 193.

<sup>(3)</sup> IDRISĪ, p. 155 : *Rahl Djarrah* et *Minyat Ibn Djarrah*. — Actuellement : *Djarrah* (PRINCE OMAR TOUSSOUN, p. 98).

<sup>(4)</sup> IDRISĪ, p. 155; *Matériaux*, p. 106; PRINCE OMAR TOUSSOUN, p. 32, 171; YA'KUBI, trad. Wiet, p. 193.

<sup>(5)</sup> IDRISĪ, p. 155; PRINCE OMAR TOUSSOUN, p. 172. — Cité plus loin.

<sup>(6)</sup> IDRISĪ, p. 155. — Actuellement : *Kafr al-Tha'bāniya*.

<sup>(7)</sup> IDRISĪ, p. 155. — Actuellement : *Mīt 'Assās*.

<sup>(8)</sup> IDRISĪ, p. 155; PRINCE OMAR TOUSSOUN, p. 98.

<sup>(9)</sup> IDRISĪ, p. 155; *Wansh*; PRINCE OMAR TOUSSOUN, p. 166. — Actuellement : *Awīsh al-Ḥadjar*.

<sup>(10)</sup> IDRISĪ, p. 155; PRINCE OMAR TOUSSOUN, p. 182. — Actuellement : *Talkhā*.

<sup>(11)</sup> IDRISĪ, p. 155 : *Minyat Shahār*. — Itinéraire partant de Talkhā sur la branche de Tinnīs (GUEST, p. 973; *Hist. du Nil*, p. 191; *Branches du Nil*, p. 97).

<sup>(12)</sup> IDRISĪ, p. 155. — Actuellement : *Maḥallat Damana*.

Le village de Kibāb al-Bāziyār<sup>(1)</sup> est situé à douze milles de Maḥallat Damīna.

Kibāb al-'Arīf<sup>(2)</sup> est un village situé à seize milles de Kibāb al-Bāziyār.

Dumū<sup>(3)</sup> est un village situé à quinze milles de Kibāb al-'Arīf.

Ṭamākḥ<sup>(4)</sup> est un joli village situé à deux milles de Dumū; il est peuplé, commerçant, pourvu de marchés.

Shumūn<sup>(5)</sup> est un village peuplé, situé à dix milles de Ṭamākḥ.

Karyat al-Anṣār<sup>(6)</sup> est à vingt milles de Shumūn.

Le village de Wabīda<sup>(7)</sup> est situé sur la rive orientale, à vingt milles de Karyat al-Anṣār.

Les deux Barimbāl<sup>(8)</sup>, sur la rive occidentale, sont situés à vingt milles du village de Wabīda.

La ville de Damiette<sup>(9)</sup> est située au bord de la mer : on y fabrique des tissus précieux.

Damīra<sup>(10)</sup> est un petit village, commerçant, où l'on trouve beaucoup de marchandises<sup>(11)</sup>, et où se tient un marché.

Sharinkāsh<sup>(12)</sup> est un joli village, peuplé, sur la rive occidentale, entouré de champs cultivés très productifs, pourvu d'industries.

<sup>(1)</sup> IDRISĪ, p. 155. — Actuellement : *Kibāb al-Kubrā*.

<sup>(2)</sup> IDRISĪ, p. 156. — Actuellement : *Kibāb al-Ṣughrā*.

<sup>(3)</sup> IDRISĪ, p. 156. — Actuellement : *Dumūh al-Sibākḥ*.

<sup>(4)</sup> IDRISĪ, p. 156. — Inconnu.

<sup>(5)</sup> IDRISĪ, p. 156 : *Shamūs*. — Actuellement : *Ashmūn*. (PRINCE OMAR TOUSSOUN, p. 165; *Matériaux*, p. 17.)

<sup>(6)</sup> IDRISĪ, p. 156. — Actuellement : *Mīt al-Naṣārā*.

<sup>(7)</sup> IDRISĪ, p. 156. — Inconnu.

<sup>(8)</sup> IDRISĪ, p. 156. — Actuellement : *Barimbāl*.

<sup>(9)</sup> IDRISĪ, p. 157; *Matériaux*, p. 92; PRINCE OMAR TOUSSOUN, p. 79; YA'KUBI, trad. Wiet, p. 195; MAKRIZĪ, IV, p. 37.

<sup>(10)</sup> IDRISĪ, p. 157; PRINCE OMAR TOUSSOUN, p. 75; YA'KUBI, trad. Wiet, p. 194. — Itinéraire depuis Talkhā sur la branche de Damiette (GUEST, p. 970; *Branches du Nil*, p. 98).

<sup>(11)</sup> IDRISĪ dit : *ṣunnā*, artisans.

<sup>(12)</sup> IDRISĪ, p. 157.



Sharimsāh<sup>(1)</sup> est un village important, sur la rive orientale, à vingt milles de Sharinkāsh : il s'y tient un marché achalandé.

Minyat al-'Ulūk<sup>(2)</sup> est un village bien peuplé, sur la rive orientale, à vingt milles de Sharimsāh, où les produits de la terre sont abondants; on y voit des pressoirs à sucre.

Fāraskūr<sup>(3)</sup> est un village situé sur la rive orientale, à dix milles de Minyat al-'Ulūk.

Būra<sup>(4)</sup> est un village entouré de champs cultivés et de vergers, situé à quinze milles de Fāraskūr.

Damsīs<sup>(5)</sup>.

Fustāt est un village<sup>(6)</sup> situé à cinquante milles de Shatanūf.

Minyat Ghazāl<sup>(7)</sup> est un village situé à vingt milles de l'embouchure du canal d'al-Maḥalla, sur la rive orientale de ce canal, offrant beaucoup de ressources et des productions agricoles variées.

Maḥallat Abil-Haitham<sup>(8)</sup> est un village situé sur la rive occidentale du canal.

Le canal de Bulķina<sup>(9)</sup>, dont (le point de départ) est situé à quinze milles de Minyat Ghazāl; les (environs) abondent en vergers et en champs cultivés qui se touchent.

<sup>(1)</sup> IDRISI, p. 157; PRINCE OMAR TOUSSOUN, p. 175.

<sup>(2)</sup> IDRISI, p. 157.

<sup>(3)</sup> IDRISI, p. 157; PRINCE OMAR TOUSSOUN, p. 89; *Matériaux*, p. 134.

<sup>(4)</sup> IDRISI, p. 157; *Matériaux*, p. 52; PRINCE OMAR TOUSSOUN, p. 46, 73; YA'KUBI, trad. Wiet, p. 195.

<sup>(5)</sup> IDRISI (p. 158) récapitule ici ses itinéraires pour donner des distances globales, d'où la répétition du nom de cette localité de Mit Damsīs.

<sup>(6)</sup> Comme dans le cas précédent, il s'agit d'une récapitulation d'itinéraires. Maḥrīzī a fabriqué ses extraits sans beaucoup d'esprit critique, ne reconnaissant pas qu'il était question de la métropole de l'Égypte : Fustāt devient un village (voir IDRISI, p. 158).

<sup>(7)</sup> IDRISI, p. 158. — Itinéraire du canal d'al-Maḥalla, qui commence à Tāṭay pour se terminer à Bulķina (GUEST, p. 965; *Hist. du Nil*, p. 263; *Branches du Nil*, p. 98). — Actuellement : *Mit Ghazāl*.

<sup>(8)</sup> IDRISI, p. 158; PRINCE OMAR TOUSSOUN, p. 132. — Actuellement : *al-Hayātīm*.

<sup>(9)</sup> IDRISI, p. 158; PRINCE OMAR TOUSSOUN, p. 73.

Le village de Dār al-Baḳār<sup>(1)</sup>.

Le village d'al-Mu'tamidiya<sup>(2)</sup>.

Le village de Matbūl<sup>(3)</sup>, florissant, où se tient un marché.

Le village de Ṣakhā<sup>(4)</sup>.

Le village de Maḥallat Ṣurt<sup>(5)</sup>.

Manūf le Haut<sup>(6)</sup> est un village peuplé, centre d'un district florissant, pourvu d'abondantes récoltes et de nombreuses ressources.

Sakāb<sup>(7)</sup>, joli village, peuplé, pourvu d'abondantes ressources et entouré de champs cultivés.

Al-Maḥallat al-Kubrā<sup>(8)</sup> est une grande localité, pourvue de marchés achalandés, commerçante, disposant de ressources abondantes.

Le village de Ṣanhūr<sup>(9)</sup> est situé à quarante-cinq milles d'al-Maḥalla.

Sandafa<sup>(10)</sup> est un beau village, important, où les ressources abondent et notamment les fruits.

Le village de Maḥallat al-Dākhil<sup>(11)</sup> est joli, entouré de jardins et de vergers.

<sup>(1)</sup> IDRISI, p. 158. — Itinéraire du canal de Bulķina (GUEST, p. 966; *Hist. du Nil*, p. 229; *Branches du Nil*, p. 98).

<sup>(2)</sup> IDRISI, p. 158.

<sup>(3)</sup> IDRISI, p. 158.

<sup>(4)</sup> IDRISI, p. 158; PRINCE OMAR TOUSSOUN, p. 32, 170; YA'KUBI, trad. Wiet, p. 194; *Matériaux*, p. 103.

<sup>(5)</sup> IDRISI, p. 158; *Matériaux*, p. 105. — Inconnu.

<sup>(6)</sup> IDRISI, p. 158. — Il semble que cette localité ait disparu (voir : *Matériaux*, p. 202; et *contra* : PRINCE OMAR TOUSSOUN, p. 28, 135).

<sup>(7)</sup> IDRISI, p. 158 : *Sakāf*. — M. Guest a remarqué que dans l'itinéraire d'Ibn Ḥawkal, on lit ici : *Subk al-'Abid*, que S. A. le Prince Omar Toussoun identifie avec l'actuelle *Subk al-Aḥad*.

<sup>(8)</sup> IDRISI, p. 158. — On revient à l'itinéraire du canal de Bulķina (GUEST, p. 965). Cf. *Matériaux*, p. 164; PRINCE OMAR TOUSSOUN, p. 133.

<sup>(9)</sup> IDRISI, p. 158. A l'ouest, par terre. Cf. PRINCE OMAR TOUSSOUN, p. 172.

<sup>(10)</sup> IDRISI, p. 158. — Cité plus haut.

<sup>(11)</sup> IDRISI, p. 159. — On reprend, vers l'est, l'itinéraire du canal d'al-Maḥalla. — Localité inconnue.



Ankāsh et Anbāba<sup>(1)</sup> sont deux îles, où sont deux villes situées entre les deux rives du fleuve.

Akhṣās<sup>(2)</sup> est un joli village entouré de jardins et de vergers.

Le village de Dharawa<sup>(3)</sup>.

Le village d'Umm Dīnār<sup>(4)</sup>.

Ashmūn Djurais<sup>(5)</sup> est un village très prospère et entouré de jardins.

Djurais<sup>(6)</sup> est une belle ville, chef-lieu d'un district vaste et important; la population y est très commerçante et agricole; elle est entourée de vignes et d'arbres.

Rimāl al-Ṣunaim<sup>(7)</sup>. Un prodige se produit dans cette localité, c'est qu'un os enterré pendant dix jours dans le sable se convertit en une pierre très dure.

Abū Yuḥannis<sup>(8)</sup> est un gros village, florissant, pourvu d'un marché, entouré de vergers et de plantations.

Tarnūt<sup>(9)</sup> est un village prospère et très peuplé, pourvu d'un marché; les habitants sont riches. Il s'y trouve un gisement d'excellent natron, qu'on exporte en tous pays.

Le village de Bistāma<sup>(10)</sup>.

Shābūr<sup>(11)</sup> est une importante agglomération.

<sup>(1)</sup> IDRISĪ, p. 159. Sur Ankāsh, cf. *Matériaux*, p. 27 et sur Anbāba, cf. *Matériaux*, p. 25.

Itinéraire de Miṣr à Alexandrie par la branche de Rosette (GUEST, p. 950, 952; *Branches du Nil*, p. 98).

<sup>(2)</sup> IDRISĪ, p. 159.

<sup>(3)</sup> IDRISĪ, p. 159.

<sup>(4)</sup> IDRISĪ, p. 159.

<sup>(5)</sup> IDRISĪ, p. 159; *Matériaux*, p. 19; PRINCE OMAR TOUSSOUN, p. 165.

<sup>(6)</sup> IDRISĪ, p. 159; PRINCE OMAR TOUSSOUN, p. 102.

<sup>(7)</sup> IDRISĪ, p. 160. — Inconnu.

<sup>(8)</sup> IDRISĪ, p. 160. — Inconnu.

<sup>(9)</sup> IDRISĪ, p. 160. — *Matériaux*, p. 58, 120; PRINCE OMAR TOUSSOUN, p. 33, 181; YA'KUBI, trad. Wiet, p. 196. — Actuellement; *Tarrāna*.

<sup>(10)</sup> IDRISĪ, p. 160. — Actuellement: *Bishtāmī*.

<sup>(11)</sup> IDRISĪ, p. 160.

Le village de Maḥallat al-Sīra<sup>(1)</sup>.

Le village de Danshāl<sup>(2)</sup>.

Le village de Ḳartasā<sup>(3)</sup>.

Le village de Sūḵ Abi Minā<sup>(4)</sup>.

Le village de Ḳaranfil<sup>(5)</sup>.

Le village de Karyūn<sup>(6)</sup>.

Le village d'al-Ṣīr<sup>(7)</sup>.

L'île de Biyār<sup>(8)</sup>.

Le village de Manūf le Petit<sup>(9)</sup>.

Le village de Babīdj<sup>(10)</sup>.

Le village de Ḳulaib al-'Ummāl<sup>(11)</sup>.

Le village de Ṣā<sup>(12)</sup>.

Le village de Maḥallat Shaklā<sup>(13)</sup>.

<sup>(1)</sup> IDRISĪ, p. 160: *Maḥallat al-Saiyida*. Ibn Hawḳal et Yaḳū donnent: *Maḥallat Nuḳaida*, ce qui permet l'identification avec l'actuel *Nakīdī* (PRINCE OMAR TOUSSOUN, p. 133).

<sup>(2)</sup> IDRISĪ, p. 160.

<sup>(3)</sup> IDRISĪ, p. 160; *Matériaux*, p. 146; PRINCE OMAR TOUSSOUN, p. 26, 89 (*Far-tassa*), p. 121; YA'KUBI, trad. Wiet, p. 197.

<sup>(4)</sup> IDRISĪ, p. 160; dans Ibn Hawḳal: *Shubrā Abi Minā*. — Inconnu.

<sup>(5)</sup> IDRISĪ, p. 160; PRINCE OMAR TOUSSOUN, p. 121. — Inconnu.

<sup>(6)</sup> IDRISĪ, p. 160; PRINCE OMAR TOUSSOUN, p. 127; *Matériaux*, p. 162.

<sup>(7)</sup> IDRISĪ, p. 160; *al-Ṣabr*. Cf. MAḲRĪZĪ, II, p. 96, n. 7. — Inconnu.

<sup>(8)</sup> IDRISĪ, p. 160. IDRISĪ appelle ainsi la région qui s'étend entre la branche de Rosette et un canal qui, partant de Rimāl al-Ṣunaim va retrouver la branche de Rosette vers Babīdj; les noms suivants en jalonnent l'itinéraire (GUEST, p. 958; *Hist. du Nil*, p. 174; *Branches du Nil*, p. 98). — Actuellement *Ibyār* (cf. PRINCE OMAR TOUSSOUN, p. 59; *Matériaux*, p. 3).

<sup>(9)</sup> IDRISĪ, p. 160: *Manūf le Bas*. — Cf. *Matériaux*, p. 202; PRINCE OMAR TOUSSOUN, p. 30, 135; YA'KUBI, trad. Wiet, p. 194.

<sup>(10)</sup> IDRISĪ, p. 160; PRINCE OMAR TOUSSOUN, p. 67. — Actuellement: *Abīdj* (*Matériaux*, p. 30).

<sup>(11)</sup> IDRISĪ, p. 161. — Actuellement: *Ḳulaib Ibyār*.

<sup>(12)</sup> IDRISĪ, p. 161; *Matériaux*, p. 116; PRINCE OMAR TOUSSOUN, p. 32, 168; YA'KUBI, trad. Wiet, p. 197; MAḲRĪZĪ, III, p. 218. — Itinéraire de Babīdj à Rosette (GUEST, p. 956; *Branches du Nil*, p. 99).

<sup>(13)</sup> IDRISĪ, p. 161. — Actuellement: *Maḥallat Ṣā*.



Iṣṭāfiya est situé sur la rive orientale, à vingt milles de Ṣā<sup>(1)</sup>.

Maḥallat al-ʿAlawī<sup>(2)</sup> est un gros village entouré de vergers et de mé-tairies, situé à quinze milles d'Iṣṭāfiya.

Surunbay est un village florissant<sup>(3)</sup>.

Fūwa<sup>(4)</sup> est un village situé à quinze milles de Maḥallat al-ʿAlawī, pourvu abondamment de fruits, entouré de pâturages, riche en marchés; c'est un centre commercial.

Al-Rāhib<sup>(5)</sup>.

Sindiyyūn<sup>(6)</sup> est un village situé à l'extrémité de l'île d'al-Rāhib.

Le village de Samdisā<sup>(7)</sup>.

Al-Ḥāfir<sup>(8)</sup> est un village situé à vingt milles de Samdisā.

Naṭūbis al-Rimāl<sup>(9)</sup>.

Al-Djadīdiya<sup>(10)</sup> est un village florissant situé à quinze milles d'al-Ḥāfir.

Rosette<sup>(11)</sup> est une localité bien peuplée, pourvue de marchés fréquentés par les commerçants. Les champs cultivés qui l'entourent produisent des grains, des légumes; il s'y trouve des palmiers et toutes sortes de fruits. Les poissons, tant de la mer que du Nil, y sont très variés : on y pêche notamment la telline, qu'on sale et qu'on exporte au loin.

La mer d'al-Ḳulzum, appelée aussi mer du Hidjaz, ressemble à un

<sup>(1)</sup> IDRĪSĪ, p. 161. — Dans Ibn Ḥawkal et actuellement : *al-Sāfiya*.

<sup>(2)</sup> IDRĪSĪ, p. 161. — Actuellement : *Mit al-Ashraf*, et il convient de noter qu'il existe près de là une petite agglomération qui se nomme : *Ezbet al-Alawi* (PRINCE OMAR TOUSSOUN, p. 329).

<sup>(3)</sup> IDRĪSĪ, p. 161.

<sup>(4)</sup> IDRĪSĪ, p. 161; *Matériaux*, p. 141; PRINCE OMAR TOUSSOUN, p. 97.

<sup>(5)</sup> IDRĪSĪ, p. 161. — C'est au nom suivant que cet extrait nous indiquera qu'il s'agit d'une île : l'îlot qui se trouve en face de Fūwa se nomme actuellement : *Radjab*.

<sup>(6)</sup> IDRĪSĪ, p. 161; *Hist. du Nil*, p. 173.

<sup>(7)</sup> IDRĪSĪ, p. 162; PRINCE OMAR TOUSSOUN, p. 171. — Inconnu.

<sup>(8)</sup> IDRĪSĪ, p. 162. — Inconnu.

<sup>(9)</sup> IDRĪSĪ, p. 162 : *Naṭūbis al-Rummān*; nous croyons qu'il vaut mieux penser à Naṭūbis-des-Sables (*rimāl*) qu'à Naṭūbis-des-Grenades (*rummān*). — Actuellement : *Maṭūbis*.

<sup>(10)</sup> IDRĪSĪ, p. 162 : *al-Ḥadīdiya*. — Actuellement : *al-Djiddiya*.

<sup>(11)</sup> IDRĪSĪ, p. 162; *Matériaux*, p. 99; PRINCE OMAR TOUSSOUN, p. 32, 167; YA'KUBĪ, trad. Wiet, p. 195.

fleuve. On y voit des écueils apparents au-dessus de l'eau. Le fond est d'ailleurs inégal, parsemé de pierres, qui forment des défilés que seuls connaissent les patrons de bateaux qui ont le sens de ces chenaux. C'est pourquoi la navigation n'a lieu que de jour, afin d'éviter les endroits dangereux.

Al-Ḳulzum<sup>(1)</sup> est le nom qu'on donne à deux villes détruites qui sont situées à quatre-vingt-dix milles de Misr, et c'est d'eux que la mer d'al-Ḳulzum prend son nom.

Fārān<sup>(2)</sup> est un petit village, à quarante milles d'al-Ḳulzum, habité par des Arabes bédouins. C'est là que fut noyé Pharaon.

Al-Ṭūr<sup>(3)</sup> est une localité sur une montagne située à proximité de la mer d'al-Ḳulzum; au sommet se trouve un oratoire; on trouve également un puits d'eau courante.

Al-Maṣḍaf<sup>(4)</sup> est un endroit agréable, à proximité d'al-Ṭūr, au bord de la mer : on y trouve une pêcherie de perles.

Aila<sup>(5)</sup> est une petite localité au bord de la mer, à proximité d'al-Ṭūr et à cinq journées de marche de Madyan.

G. WIET.

<sup>(1)</sup> IDRĪSĪ, trad. Jaubert, I, p. 351; *Matériaux*, p. 149; YA'KUBĪ, trad. Wiet, p. 199; MAḲRĪZĪ, IV, p. 34.

<sup>(2)</sup> IDRĪSĪ, trad. Jaubert, I, p. 332; *Matériaux*, p. 133; MAḲRĪZĪ, III, p. 245.

<sup>(3)</sup> IDRĪSĪ, trad. Jaubert, I, p. 332; *Matériaux*, p. 122; PRINCE OMAR TOUSSOUN, p. 188.

<sup>(4)</sup> IDRĪSĪ, trad. Jaubert, I, p. 332.

<sup>(5)</sup> IDRĪSĪ, trad. Jaubert, I, p. 332; *Matériaux*, p. 30; YA'KUBĪ, trad. Wiet, p. 199; MAḲRĪZĪ, III, p. 228.



SOME NEW LIGHT  
ON THE  
BEGINNINGS OF EGYPTIAN CIVILIZATION

A SYNOPSIS OF CULTURE COMPLEXES AND CONTACTS OF EGYPT  
IN LATE PREHISTORIC AND PROTOHISTORIC TIMES, WITH SPECIAL REFERENCE  
TO FLINT INDUSTRIES

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FOREWORD.

The present essay is an attempt to trace, in their geographical setting, the culture complexes and contacts of Egypt during Neolithic and post-Neolithic times. The main effort will be devoted to a comparative study of the cultures in Egypt and its neighbouring regions with the aim of assessing contacts at this early stage. This will finally lead to the question : Is Egyptian civilization as we know it at the dawn of history autochthonous? or is it of outside extraction? And if it were of local origin, when did it get into contact with the outside world and to what extent was it affected by it? This line of investigation has been followed by previous writers (e.g. H. Frankfort, 1924, A. Scharff, 1927, etc.), but in practically all cases the main attention was directed to pottery and a number of other *tradable* articles. This method of approach has certainly been useful in bringing up a number of valuable points especially in matters connected with the study of commercial and cultural relations. It was not, however, entirely immune from criticism. Pottery is a *tradable* article and the technique or pattern of some of its wares can sometimes be



copied. Thus although its study may be very useful for dating and correlating cultures, it may actually be somewhat misleading in tracing *local* facies of culture. The case is even more so with certain other classes of more easily tradable articles (beads, ornaments, etc.) which, under certain circumstances (as in a grave group for example), may be found in such proportions as to overwhelm and even mask other articles of *local* manufacture. On the other hand a comparative study of flint implements (or rather "groups" of flint implements) may be less misleading. We have definite proofs from many of the settlements excavated in Egypt that the flint industry was largely worked locally. Large numbers of discarded chips, unfinished tools, broken and reworked specimens, etc., are usually found either in the settlement or at some near-by chipping site. Even in cases when imported types were copied, the actual execution and final finish of the tool were largely governed both by the skill of the copier and the nature of the material available. In other words, the technological study of the flint industry in the various settlements and cemetery groups may be more reliable in tracing local differences and specializations. Needless to add that in attempting to obtain a sufficiently balanced picture of the culture complex of a region like the Lower Nile valley, it is as necessary to know the element of local differentiation as those of general and wide correlation. Flint groups of tools may therefore offer a useful check on data from pottery, beads, ornaments, etc.; and the check is all the more welcome when we come to study culture sequence and correlations in widely separated areas. It is for this reason that we thought a comparative study of the flint industries of Egypt and its neighbouring regions may be a helpful complementary to what we already know from studies on other classes of remains.

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In the present Essay the industries of the late Middle, Upper and Final Palaeolithic of Egypt are touched upon. This, however, is done in summary, with the main object of clearing up any connections that may exist between them and the later industries of the Neolithic and post-Neolithic phases. The technological details of the industries of

these latter phases, however, are studied in detail. The data put forward here are largely derived from the study of museum material at places mentioned in the footnotes. A good section of this material is unpublished or published only in part. Permission was, however, obtained to make the drawings given on the plates at the end of this Essay. These drawings (made from original specimens, or copied from publications mentioned in the explanatory notes accompanying the plates) have been made by the writer for ordinary working purposes; but it is hoped that they will be clear enough to convey the points explained in the text.

An attempt has been made to render the references in the footnotes as complete as possible. In order to save space only the names of authors and the dates of publication have been given in these footnotes. But a key to the full titles and references of publications may be found in the bibliography at the end.

A final note must be added on terminology and nomenclature. There is still no agreement between prehistorians on the general use of such terms as Chalcolithic, Eneolithic, etc. It would have been futile to attempt to set up a standard connotation for such terms; but the term Chalcolithic was used in prehistoric Egypt to cover the period from the Badarian to the end of the pre-Dynastic (inclusive). We have also used the word post-Neolithic quite freely to mean the same thing as Chalcolithic. The word Eneolithic was retained for Palestine for reasons explained in the text. As for nomenclature, a system of transliteration of place-names (and cultures derived from them) was adopted which would not be difficult to follow. It was found, however, that in certain cases (such as Mremdah or Marmadat Bani Salamah, etc.) a strictly correct transliteration might be actually misleading to readers who are not acquainted with Arabic; and so the current forms and their derivatives (Merimde and Merimidian, etc.) were maintained.



## SUMMARY OF SCHEME OF TREATMENT.

## I

AN INTRODUCTORY NOTE on the late Middle, Upper and Final Palaeolithic of Egypt. The earliest phase of localization and specialization of culture in the Lower Nile valley.

## II

THE NEOLITHIC AND CHALCOLITHIC of Egypt and adjacent areas : Detailed study of a new phase of culture specialization. The Three Approaches of Egypt; W., S. and N. E. Short treatment of each Approach with special reference to culture contacts with Egypt. The true Neolithic of Egypt : a comparative study of industries and techniques. The post-Neolithic culture sequence in Egypt (up to rise of Dynasties) : a study of the processes of differentiation and assimilation within the Nile valley. Commercial and cultural relations with the various Approaches mentioned above.

## III

SUMMARY OF THE NEW PHASE of culture localization and specialization in Neolithic and post-Neolithic times. A physiographic setting of the stage in proto-Neolithic and later times. Geographical orientations and culture contacts of Egypt during this phase. An assessment of local and outside factors in culture complexes at the beginning (and during the early stages of development) of Egyptian culture. Speculations on the beginnings of Egyptian civilization in the light of new data.

## IV

GENERAL SUMMARY AND CONCLUSIONS.

## LIST OF ILLUSTRATIONS (AT END).

- Plate I. — Diminutive Levallois and so-called pre-Sabylan Industries.  
 Plate II. — Egyptian late-Middle and Upper Palaeolithic Industries.  
 Plate III. — Ounanian and Associated Industries.  
 Plate IV. — The Eneolithic Industries of Palestine.  
 Plate V. — Fayyoun Cultures and the Neolithic of the W. Sahara.  
 Plate VI. — Post-Neolithic Industries of Egypt.

## I

## INTRODUCTORY : LATE-MID., UPPER AND FINAL PALAEOLITHIC INDUSTRIES OF EGYPT.

The study of Egyptian prehistory has made vast advances within the last decade or two. Up to then only fragmentary accounts were available about the sequence of cultures in Palaeolithic times, while nothing was known of the true Neolithic. The study of the pre-Dynastic phase proper was largely in the hands of Egyptologists who did admirable work, but whose approach to the subject was not always strictly in harmony with that of the prehistorian. In recent years, however, a number of geologists and prehistorians have entered the field bringing with them fresh methods of physiographic, stratigraphical and technological investigation. This did not fail to contribute considerably to our knowledge of Palaeolithic and later times. The time may not have come yet when a comprehensive account can be safely given of the full culture sequence in prehistoric Egypt, though the details of the story are being steadily pieced together. One point, however, has become abundantly clear, and that is that no thorough understanding of Egyptian civilization as we know it at the rise of the Dynasties can be achieved at all without intimate reference to previous times. The proto-Dynastic phase leads back into the proper pre-Dynastic one, while this latter has behind it the Early Chalcolithic and the true Neolithic cultures. In the present Essay an effort has been made to trace the beginnings of Egyptian civilization to their earliest direct roots in the Neolithic, but it may help to give here a short introductory note on the latest stages of the Palaeolithic.

Thanks largely to work by Bovier Lapierre, K. S. Sandford, G. Caton-Thompson and E. W. Gardner our knowledge of the physiographic setting and technological sequence of Palaeolithic cultures in the Lower Nile valley has very much increased<sup>(1)</sup>. The Lower Palaeolithic in Egypt does

<sup>(1)</sup> P. Bovier Lapierre (1925), pp. 37-46 and (1931); K. S. Sandford and W. J. Arkell (1929), (1933) and K. S. Sandford (1934); and G. Caton-Thompson (1931 a and b), (1932), also forthcoming publication by G. Caton-Thompson and E. W. Gardner on Khargah (probably in the *Mém. de l'Institut d'Égypte*, Le Caire).



not show any marked differences from other parts of the Old World which yielded similar industries. Pre-Chellean, Chellean and Acheulean techniques are associated in the terraces of the Nile valley first with Clactonian and later on with Early Levalloisian flakes. As may be expected similarities are marked with adjacent areas both in Palestine and in the Sahara. A conspicuous change, however, seems to have taken place in late Middle Palaeolithic times. At this stage we begin to notice the first signs of a specialization of technique in Egypt on lines different from those even of adjacent areas. The Middle Palaeolithic in Egypt is primarily Levalloisian in technique (*i. e.* flakes largely with prepared platform but not with sloping lateral retouch) and in this it differs from Palestine where there is a mixture of Levalloisian and Mousterian techniques<sup>(1)</sup>. Towards the close of the Middle Palaeolithic the Levalloisian industry became more and more specialized in Egypt. The implements became smaller and smaller until they attained diminutive dimensions. That there was a deliberate attempt at obtaining short flakes is shown by the abundance of *nuclei à deux talons*, *i. e.* cores from which flakes have been struck from opposite directions. This industry is illustrated on our Plate I (see especially double-ended cores Nos. 2 and 3) and it has been found in various parts of the valley<sup>(2)</sup>. We propose to call it the "Diminutive Levallois". Its tools (especially in the later stages) are sometimes characterized by very steep trimming or blunting of the edges of the flakes—a technique which is quite different from the usual Mousterian. From this substratum of diminutive Levallois sprang the various facies of the Upper Palaeolithic of Egypt. The first to be distinguished of

<sup>(1)</sup> The difference between Levalloisian and Mousterian flakes is essentially a technological one. Mousterian flakes usually have a smaller proportion of specimens with prepared platforms, but they show sloping secondary flaking on the edges. This lateral work hardly exists in the Levalloisian proper. H. Breuil (1931, p. 7), was the first to introduce the term Levalloisian instead of Mousterian in dealing with Egypt.

<sup>(2)</sup> Also in the 28 m. and 24 m. (above sea-level) beach-deposits of the Old Lake of the Fayyoun, and in what appears to be terrace or deltaic deposits (of uncertain height as yet) in some of the dry wadis of the E. Desert.

there latter is the Sabylian (Sebilian) of Upper Egypt<sup>(1)</sup>. This industry differs essentially from both the Aurignacian and the Capsian of other parts of the Old World in the fact that it starts as a "flake" rather than a "blade" industry<sup>(2)</sup>. We need not go into all the details of its three stages (Lower, Middle and Upper Sabylian), but, as may be seen from Plate II (Nos. 1-24), the industry includes small cores (mostly *à deux talons*), small flakes with neatly prepared platforms and other types of flakes with steep lateral retouch. In many cases the flakes were deliberately broken (or mutilated) and the break lines retouched. The most common technique was the removal of the thick bulbar end of the tool either by very bold trimming or by means of a transversal break and the subsequent retouching of the break line (see particularly specimens Nos. 6-8 and 12-13, Plate II). As the industry developed geometrical and other microlithic forms made their appearance and this gradually led the way to the Final Palaeolithic.

Another similar, though less evolved, industry has come from Khargah oasis (and the opposite parts of Upper Egypt). It is the so-called pre-Sabylian<sup>(3)</sup> which, as may be seen from Plate I (Nos. 8-11), is especially marked by steep and rather crude trimming and mutilation. The flakes have been deliberately broken, and bulbar, median and tip fragments utilised as tools. In the Khargah oasis this industry seems to have disappeared all of a sudden and it may even have been ousted from there by Atirian (Aterian) elements arriving from the W. Sahara in the Upper Palaeolithic<sup>(4)</sup>. The desert region west of the Qina bend of

<sup>(1)</sup> Ed. Vignard was the first to distinguish this industry in the Kom Ombo basin and to baptise it as Sabylian (*Sébilien*). See his works (1923), pp. 1-76 and (1928), pp. 200-220; see also our Pl. II, Nos. 1-24.

<sup>(2)</sup> "Flakes" are usually broad in relation to their length, while "blades" are relatively narrow and elongated.

<sup>(3)</sup> See G. Caton-Thompson (1932), pp. 130-31 and G. Caton-Thompson and E. W. Gardner (1932a), pp. 393-95 and 404. The term pre-Sabylian, however, is somewhat unfortunate as although the industry has a good deal in common with the Sabylian of Kom Ombo it can in no way be regarded as the proto-type of the Sabylian proper.

<sup>(4)</sup> The Atirian technique which started in N. W. Africa in late Middle Palaeolithic



the Nile, however, has yielded microliths which may represent the continuation of the pre-Sabylian<sup>(1)</sup>.

And finally, in the Wadi Angabyyah E. N. E. of Cairo was discovered an Upper and Final Palaeolithic industry of somewhat different nature<sup>(2)</sup>. As may be seen from Plate II (Nos. 25-32) it is chiefly characterized by long blades rather than by broad flakes. In this respect it differs from the Sabylian which represents the Upper Palaeolithic of Up. Egypt. The flakes, however, show the same technique of steep mutilation. At a later stage a microlithic industry was evolved though it was much poorer in variety than either the Late Sabylian of Upper Egypt or the Capsian of N. Africa. Apart from a number of long triangles the industry did not include any of the true geometrical forms, and it yielded no microburins (which were amongst the most common tools of the Upper Sabylian). This industry continued at Hilwan right through protohistoric times (*vide infra*)<sup>(3)</sup>, and we shall see later on that a similar facies persisted in the Fayyoun and became mixed with the Fayyoun B (late Neolithic).

To sum up the culture sequence in Egypt during Upper and Final Palaeolithic times we may state that the earliest specialization of flint technique along local lines in Egypt goes back to the late Middle Palaeolithic. Egypt does not seem to have been affected to any marked extent by the Mousterian technique which penetrated (from some Euro-Asiatic centre?) as far as Palestine. During this early phase, when climatic

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times did not reach Egypt and Palestine until the Upper Palaeolithic. For date of its arrival in Egypt see G. Caton-Thompson (1931 a), p. 82 and fig. 4, and (1932), pp. 130-31 and G. Caton-Thompson and E. W. Gardner (1932 a), pp. 384 and 404. For Palestine see D. Garrod (1934 b), p. 142.

<sup>(1)</sup> For specimens from the Armant Desert area see collection of Geog. Dept., Cairo University.

<sup>(2)</sup> This station (not published yet) was discovered by Prof. O. Menghin. It is about 25 km. E. N. E. of Cairo. For specimens from it see collection of Geog. Dept., Cairo University; also Prof. Menghin's collection in Urgesch. Inst. (Vienna).

<sup>(3)</sup> On the industry of Hilwan see collection of Brit. Mus. (London), presented by Dr. Riel and registered as 1916. 6-6. 164 and 165; also collection of al-Mat-Haf al-Misri (Egyptian Museum, Cairo) specimens registered: Amin al-Umari, 50065-50204 and Seton-Karr 1900.

conditions over Saharo-Arabian latitudes were sufficiently wet, the Valley of the Nile did not offer such an attractive land to the expanding tribes of the Mousterian. There is, in fact, some reason to argue that the valley did not represent a corridor of migration and that its culture was left to develop along its own lines. A new facies which we propose to call "Diminutive Levallois" sprang up from the older Levalloisian. It consisted of small flakes (and blades) struck off small cores. Some of the cores were double ended, thus showing deliberate attempt to produce short flakes. From this substratum there sprang at least three facies: the Sabylian (with its Lower, Middle and Upper sub-facies) in Uppermost Egypt, the so-called pre-Sabylian in Khargah and its continuation in the Desert W. of the Qina bend of the Nile, and the Angabyyah-Hilwan industry in N. Egypt. All these facies differed from the rest of the Upper Palaeolithic elsewhere in the Old World. As we have seen, the Upper Palaeolithic industry of Egypt is directly derivable from the Middle Palaeolithic, while in other regions (Aurignacian in Europe and Palestine and Capsian in N. W. Africa) there is no definite link between the two culture phases. Thus the Levalloisian "flake" technique continues in Egypt (especially in the Sabylian of Uppermost Egypt), while it is practically unknown in the Aurignacian (apart from the early local sub-facies of Audi) and the Capsian. The burin or graver, which is one of the most characteristic tools of the Aurignacian and the Capsian, is conspicuously absent from the Upper Palaeolithic of Egypt. But apart from being distinguishable from industries of other regions, the Upper Palaeolithic of Egypt shows local differences between its regional facies. The S. facies (true Sabylian) approximated more closely to a real "flake" industry than the N. one (Angabyyan), while the pre-Sabylian represented an intermediate technique. In the Final Palaeolithic local differences became even more pronounced. The N. facies was much poorer than the S. one, which became much more characteristic of its area. The micro-burin (a particularly specialized tool) was profusely abundant in the south while it was practically absent from the north. We can see that regionalism in culture was becoming more and more manifest. Microlithic industries flourished on the desert edges of the Valley and, as we shall see later on, they even persisted into later culture phases.



But climatic conditions were becoming drier, and a climatic crisis was being gradually established. In certain parts of the country, especially in the south (which was more affected by the dryness), the Final Palaeolithic technique, which represented the ultimate development of the Upper Palaeolithic, gradually degenerated and died out. Thus, apart from survivals here and there, the movement of technological "specialization" which started in the late Middle Palaeolithic was gradually dying out and nearing its end. At this juncture, however, we find a new movement in Egypt (*vide infra*) which was ultimately destined to bear its fruit in the Neolithic and post-Neolithic. With the appearance of these latter phases we have a new industry with massive tools exhibiting an entirely different technique from that of the final stages of the early movement (i. e. Final Palaeolithic). We can see that although some of the microlithic forms "persisted" into later times and even got "mixed" with some late Neolithic and post-Neolithic industries, the distinctness of the two groups and techniques cannot be mistaken. But how did the new movement of the Neolithic start? and where was it first evolved? and under what physical conditions? These are questions to which a definite answer could not be satisfactorily sought in the present state of our knowledge. But an effort will be made in the following pages to shed a little light which may help to trace a way towards a partial, though perhaps not entirely unsatisfactory, solution.

## II

### NEOLITHIC AND POST-NEOLITHIC CULTURE COMPLEXES

#### AND CONTACTS.

But before we deal with the Neolithic and post-Neolithic stages in Egypt proper it may be useful to start with a general survey of the three main approaches of Egypt, i. e. the W., the S. and the N. E. This would offer a more practical method of treatment and would help to assess the local and outside factors that may have been involved—directly or indirectly—in the evolution of culture in N. E. Africa. The study of the

three approaches will be followed by an epitome of the culture complexes and orientations of Egypt during this phase.

We may start with the W. approach (i. e. the Sahara and N. W. Africa). A word must first be said about the much vexed problem of the rock drawings and paintings which have been found in N. W. Africa, in the Interior of the Sahara and its S. borders, in the 'Uweinât Massif and in Nubia and Uppermost Egypt<sup>(1)</sup>. They appear to link up with both the E. Spanish group, on the one hand, and the E. Abyssinian and S. African ones, on the other<sup>(2)</sup>. Some authorities<sup>(3)</sup> place their earliest representatives in the Up. Palaeolithic, while others regard them as late Neolithic<sup>(4)</sup>. Unfortunately the question cannot be settled definitely, as the engravings are never found in undoubted association with stone implements or other remains that may help to date them. H. Breuil has recently ventured, however, to divide these drawings (apart from the purely historic ones) into three main series<sup>(5)</sup>: *a*) the oldest and least abundant, representing « *le grand bubale antique* » (*Bubalus antiquus*), the African elephant, etc. It may have been pre-Neolithic or perhaps late Up. Palaeol. in date; *b*) the middle series with abundant well executed drawings of naturalistic or semi-naturalistic style. The fauna includes rather rare buffalo (*grand bubale et bœuf*) together with elephants, rhinoceros, lion, panther, giraffes, antelopes, African ram (*Ovis longipes*?),

<sup>(1)</sup> On N. W. Africa and the Sahara see especially such works as G. Flamand (1921), L. Frobenius and H. Obermaier (1923-25); also H. Breuil (1931), pp. 97-112 and H. Obermaier (1930), pp. 267-72. On the 'Uweinât Massif see H. Breuil (1928), pp. 4-15. On Nubia see G. Schweinfurth (1912) and K. S. Sandford and W. J. Arkell (1933), pp. 63-71; also more particularly J. A. Dunbar (1934), pp. 139-167.

<sup>(2)</sup> H. Breuil (1931), p. 97.

<sup>(3)</sup> e. g. H. Kühn (1928), p. 79.

<sup>(4)</sup> e. g. G. Flamand (1921) (referred to in A. Bernard, 1921, pp. 19-21 and S. Gsell 1913, p. 54). On this question of dating Saharan rock drawings see also R. Vaufrey (1936), pp. 624-38, and a more recent pub. by same author in « *Cahier d'Art* » (Paris 1937 or 1938) which we did not see.

<sup>(5)</sup> H. Breuil (1931), pp. 101-107. The division is based on the technique and *état physique* of the drawings, as well on the animal groups they represent.



ostriches, etc. There are signs of either domestication or semi-domestication (*apprivoisement*). This group may be dated either to some transitional phase between the Up. Palaeol. and the Neolithic or to the latter; c) the third and most recent series is rather conventionalized with bodies of animals represented by a rectangular shape. It includes buffaloes (*bœuf*), elephants, lions, giraffes, goats, sheep, ostriches, etc. It is equated roughly with the proto-dynastic phase of Egypt and the Neolithic of E.-Spain. Of course this method of dating, however helpful it may be, cannot be entirely safe, and is used only as an approximation. It appears, on the other hand, that further precision may be reached by referring to the evidence of past climates. It is clear that the wide distribution of this culture (which is, to a certain extent, homogeneous, though not strictly belonging to one sub-phase) and the variety of animal groups it represents can correspond only to a phase of relative increase in rainfall. According to recent evidence from the Sahara and N. W. Africa the Up. and Final Palaeolithic represented a phase of increasing aridity, while the Early Neolithic corresponded to an increase in precipitation over most of the Sahara<sup>(1)</sup>. The latter stage was also accompanied by a renewal in the faunal migrations between the Sudan Belt and N. W. Africa. In this respect, it is interesting to note that the *Bubalus* (or *Buffelus antiquus*), which appears in the earliest series of Breuil, is represented among the faunal forms of N. W. Africa only from deposits belonging to the Mousterian (and earlier phases) on the one hand, and the Neolithic on the other<sup>(2)</sup>. It "skips" the Up. Palaeolithic proper. Also the only ascertained remains of the African elephant occur, for the first time, in the Neolithic, while other species of this animal become extinct (or emigrate) by the end of the Mid. Palaeolithic<sup>(3)</sup>. On this evidence, therefore, it would appear improbable that the rock

<sup>(1)</sup> See particularly works by J. Bourcart (1933), pp. 825-26, and A. S. Romer (1928), pp. 131-32. We find reason to believe that Saharan latitudes in general (including Egypt) had a "Neolithic" wet phase (using the term "Neolithic" in a very wide sense). *Vide infra*.

<sup>(2)</sup> A. S. Romer (1928), p. 162.

<sup>(3)</sup> A. S. Romer (1928), p. 161.

drawings and paintings of the Sahara and N. Africa could be placed either in the Up. or in the Final Palaeolithic. Interesting physiographic evidence has also turned up recently from Nubia<sup>(1)</sup>. The earliest series of drawings there stands at 10-12 m. above the present river; and consequently, they could not have been executed before the recent phase of "degradation" which took place after the Sabylian proper (or from Middle Sabylian times onwards)<sup>(2)</sup>. Their earliest possible date is the late-Middle or rather the Up. Sabylian, though in all probability, they belonged to the same date as the drawings of the Sahara, i. e. the Neolithic wet phase (equivalent of the Climatic Optimum in N. W. Europe, i. e. from about the middle of the 6th mill. B. C. onwards)<sup>(3)</sup>. If this be so, both culture groups (in Nubia and in the Sahara) may perhaps be attributed to one and the same movement of migration of peoples with similar artistic traditions. Whether this movement started in the South (on the E. border of Abyssinia and Somaliland?) or in the North (E. Spain and N. W. Africa) is a matter that awaits further elucidation, though the first alternative is the more probable<sup>(4)</sup>. While the typical and Final Capsian are exceedingly poor in artistic expressions, the microlithic (Final Palaeolithic or later) industries of S. E. Ethiopia have yielded rock

<sup>(1)</sup> K. S. Sandford and W. J. Arkell (1933), pp. 70-71.

<sup>(2)</sup> It is not clear whether what Sandford and Arkell (*ibid.*) regard as the Mid. Sabylian (the phase during which degradation started) was really a typical Sabylian culture or rather a degenerate form of it. During late Mid. Palaeol. and early Sabylian times there was a phase of "aggradation" in Nubia, during which the water mark reached 30 m. above the present flood-plain at Wadi Halfa. During that early phase, the level at which the drawings were made was well under water. After this "aggradation" there came a new phase of "degradation" (from Mid. Sabylian times onwards) during which the water-mark was gradually lowered beneath the level at which the drawings were made. The pictures (which are not water-worn) must therefore be later than both processes of "aggradation" and "degradation".

<sup>(3)</sup> On this so-called "Neolithic" wet phase in Saharan latitudes and its equivalents elsewhere see S. A. Huzayyin, 1936, pp. 19-22 and 88.

<sup>(4)</sup> It is not impossible, however, that although the main migration was from the South, E. Spain may have exerted some influence. Little is known about the possibility of certain African elements having been introduced into Spain in the Early Neolithic phase.



drawings of high interest<sup>(1)</sup>. The similarities between the Sahara, on the one hand, and S. Africa on the other, render it likely that the two regions may have been affected by a culture-drift which started in some intermediate area between the two: This point, however, will be further referred to a little later<sup>(2)</sup>.

The Neolithic phase of N. W. Africa and the Sahara is still very little known. Starting with the former region we find that the earliest traces of the Neolithic are represented by the so-called Inter-Capso-Neolithic (« *Intergétuloneolithique* » of Gobert)<sup>(3)</sup>. As its name suggests it includes a mixture of the Capsian and the Neolithic, though the latter seems to have been simply superimposed upon the former. The industry is made up of abundant microliths of geometrical forms, narrow backed blades (*lames à dos rabattu*), « *limaces* » (or « *lamelles à deux tranchants abattus* »), blades with lateral « *encoches* », small semi-round sickles, small arrow-heads of typical Saharan forms (lozenge-shaped, fork-based or tanged) and rare laurel-leaf points of rather crude workmanship. Polished axes and pottery also occur. It is clear from this mixture that we are dealing with a blend of two culture-phases. It hardly needs emphasis, however, that the Neolithic elements can in no way be regarded as having evolved from the Final Capsian. All indications go to the effect that these advanced elements represented an « introduced » facies which was mixed locally with surviving Capsian industries.

Other traces of the Neolithic proper are rather scanty. There are certain Megalithic structures (Dolmens), which are regarded by some workers as representing proto-types for the Egyptian Mastabas<sup>(4)</sup>. Apart from the fact, however, that such an assumption is not easily acceptable on technical grounds<sup>(5)</sup>, the dates of these N. African Dolmens are, in

<sup>(1)</sup> See H. Breuil (1934), pp. 473-83.

<sup>(2)</sup> There are also certain similarities between some of the Saharan drawings and the historic ones of Egypt. It is almost certain that these similarities represented a culture-diffusion from Egypt westwards; but they need not engage us here.

<sup>(3)</sup> On this industry see E. Gobert (1914), pp. 19-22 and (1912), pp. 152-68; also R. Vaufrey (1933), pp. 478-80.

<sup>(4)</sup> E. Baumgärtel (1926), pp. 27-8 and 35.

<sup>(5)</sup> See discussion of Baumgärtel's views in A. Scharff (1927), pp. 45-46.

all probability, later than the earliest Egyptian Dynasties. The evidence thus far available from the N. borders and the interior of the Sahara seems to be definitely in favour of a comparatively late date for the Neolithic cultures<sup>(1)</sup>. Several surface stations in this Saharan zone have yielded Capso-Neolithic cultures of a somewhat degenerate character. The Neolithic is usually characterized in this region by an abundance of small arrow-heads of many types, but usually different from those of the Egyptian Neolithic<sup>(2)</sup>. The Oasis of Ouargla and some other parts of the N. Sahara have yielded interesting flint implements which throw useful light on the question of contact with Egypt<sup>(3)</sup>. These include laurel-leaves and javelin points, which are finely worked on both faces. There are also knives made of tabular flint with marginal flaking usually on one edge and on the tip only (leaving the other edge and the base-end intact)<sup>(4)</sup>. Another interesting implement (usually made of chalcedony), which occurs very sporadically is the so-called « *flèche pistiliforme* » which has been recovered from Ouargla and the region of Tabelbalat<sup>(5)</sup>. The

<sup>(1)</sup> For a good account about these cultures see H. Breuil (1931), pp. 86-93 and accompanying figures. Of course, we are not concerned here with the «retarded» and mixed cultures of the Neolithic which continue in parts of the Sahara until Roman times.

<sup>(2)</sup> The Saharan arrow-heads are usually small (2-3 cm. in length) and of a lozenge shape, tanged or with forked base; see figs. 69, 70, 72 and 73, in H. Breuil (1931). Also see our Pl. V, Nos. 16-27. Hardly any specimens bear resemblance to the Early Fayyoun types (compare on same Plate, Nos. 4-10).

<sup>(3)</sup> For the material from Ouargla see coll. of the Manchester University Mus., specimens registered as W. Boyd Dawkins Collection. Also coll. of the Inst. de Paléont. hum. (Paris), specimens regist. as from Ouargla.

<sup>(4)</sup> For a specimen of this form from the interior of the Sahara (Temassenin) see Pitt-Rivers Mus. (Oxford), Fromholtz Coll. 1914, No. 343 (also our Pl. V, Nos. 14-15). As we shall see later on, this implement is typical of the B culture (late Neolithic) of Fayyoun; and it also occurs in Siwah (compare our Pl. V, Nos. 12-13).

<sup>(5)</sup> H. Breuil thinks (1931, p. 90), that this very special type of arrow-head which is evidently foreign in the N. Sahara, can only have come from Egypt where it occurs in the Naqadah-Abydos region (proto-Dynastic or Early Dynastic; see W. M. Flinders Petrie 1915, p. 124 and Figs. 203-05) and also at Ma'adi (late pre-Dynastic, *vide infra*). For this type see our Pl. V, Nos. 28-30 (from Egypt) and 31-32 (from Ouargla).



similarities between these industries and those of the Chalcolithic and proto-historic phases of Egypt must be left for consideration at a later stage.

The S. border of the Sahara is again less known than the North. On the whole, however, we find that here too, the Final Palaeol. cultures seem to have survived, though the mixture with the Neolithic is rather less conspicuous. A surface station of special importance has been found in the region of Ounan (N. of Tumboktu), and Breuil distinguishes there a blade culture which he calls Ounanian<sup>(1)</sup>. As may be seen from Pl. III the industry is made chiefly of long blades and blade-points with a median ridge and a narrow tang or shank made by vertical retouching. It also includes prismatic rods with a triangular section. "Typologically" this industry can be regarded as an Upper or Uppermost Palaeolithic facies, though in no way can it be compared with the Capsian or any other typical Upper Palaeol. culture<sup>(2)</sup>. As the region in which it has been found is particularly dry at present, it must have coincided with a phase of increased precipitation. If the conclusions arrived at by most workers on Saharan Climates<sup>(3)</sup> be accepted, this culture cannot be placed in the Up. Palaeol. phase which was especially dry over the whole of the Sahara and its fringes. Furthermore, we shall see a little later that the Ounanian industry is not entirely without parallel in Egypt and Palestine. "Ounanian" blade-points and prisms occur in Khargah Oasis and also as far N. as the Fayyoun, where they cannot be regarded as Up. or even as Final Palaeolithic (*vide infra*; also compare Pl. III). Similar blade-points also occur in the Early Bronze of Palestine<sup>(4)</sup>. We therefore prefer to place the Ounanian of the S. Sahara in the wet phase, which coincided with the Neolithic (and post-Neolithic) of Egypt<sup>(5)</sup>.

<sup>(1)</sup> See H. Breuil (1931), p. 78. Also coll. of the Trocadéro Mus. (now called *Musée de l'Homme* Paris), specimens regist. 33.19. 535-662. (Compare also our Pl. III, Nos. 1-6).

<sup>(2)</sup> Nor can it be regarded as a descendant from the Atirian. The tang technique is different in the two industries.

<sup>(3)</sup> See more particularly works of J. Bourcart (1933) and A. S. Romer (1928).

<sup>(4)</sup> *Vide infra*; also Pl. IV.

<sup>(5)</sup> For evidence of this wet phase in Egypt see G. Caton-Thompson and E. W. Gardner (1929), pp. 34-36 and 39, and (1932a), pp. 371-72.

To the same phase belong, in all probability the fine microlithic "bifacial" lunates and their accompanying forms of the Burg al-Ruz, to the N. of Ounan<sup>(1)</sup>. Another industry from a neighbouring region (the Adrar Ahnet, to the E. of Ounan) must have also been accompanied by wetter conditions than today<sup>(2)</sup>. It is found in kjokkenmøddinger with abundant fish remains. The industry is made up of a multitude of blades, short tanged points, microlithic end-scrapers (thumb scrapers), backed and "bifacial" lunates, fine javelin-points and arrow-heads of various descriptions (usually small, with or without tang, sometimes of a triangular shape or with slightly hollow base)<sup>(3)</sup>. Crude pottery has also been found. This industry is evidently a mixed one, having both Final Palaeol. and Neolithic affinities. In some respects it resembles one with a degenerate Sabylian-like facies which has been found at Wadi Halfa<sup>(4)</sup>, while in others it links up with a so-called Neolithic culture recently discovered in the Nigerian Sahara<sup>(5)</sup>. The chronological place of this latter is not known, though in all probability it is not much earlier than the so-called "Sudanese" Neolithic, which may be quite historic<sup>(6)</sup>. It is rather of a mixed nature as it includes, together with flat triangular and hollow-base

<sup>(1)</sup> On this see Coll. of Trocadéro Mus. (now called *Musée de l'Homme*, Paris), specimens regist. 33.19.1153-57, etc.

<sup>(2)</sup> On this see Th. Monod (1931), pp. 253-84 : also his work (1932).

<sup>(3)</sup> See Planches A-D in Th. Monod (1931).

<sup>(4)</sup> For this see Coll. of Manchester University Mus., specimens regist. A. Archer O. 2017.

<sup>(5)</sup> See H. Kelley (1934), pp. 135-143 and Pl. VIII-X.

<sup>(6)</sup> It is interesting to note that this industry of the Nigerian Sahara includes arrow-heads and microliths (H. Kelley, 1934 Pl. IX-X) very similar to specimens found in tumuli dating approximately from the 9th and 8th centuries B. C. in the Dongola region of the E. Sudan; compare coll. of the Archaeological Museum, Gordon College, Khartoum, regist. Nos. 1576-1579. H. Kelley (1934, p. 143) suggests certain typological similarities between some of the arrow-heads of the Nigerian Sahara and those of Badari and the Early Fayyoun in Egypt. The present writer, who has had the chance of examining the Nigerian specimens finds, however, that they are much smaller and more slender in size (than those of Badari and the Early Fayyoun), and appear to represent a somewhat degenerate technique. The similarities with the historic industry of Dongola are, on the other hand, much closer.



arrow-heads (similar to Dongola specimens of the E. Sudan) and ground axes of Sudanese style, typical Saharan arrow-heads of the tanged and fork-based types. The mixed nature of this industry suggests that it is of a comparatively late date (and certainly later than the typical Neolithic of Egypt).

To summarize the evidence from the Sahara and its N. and S. borders, it may be roughly stated that there are areas with mixed Final Palaeol. and Neolithic facies and others with somewhat purer Neolithic cultures. Taken as a whole, the mixture is usually more on the outside fringes (N. W. and S.), while the interior is chiefly characterized by a typical "Saharan" culture whose rich variety of small arrow-heads is a distinctive feature. All these industries (followed in the S. by the so-called Sudanese Neolithic) appear to have prospered at one moment or other during the last wet phase, which may be called, for convenience, as "Neolithic" (using the word in its widest sense). In all probability, this phase was marked by wide movements of human groups with high artistic abilities. We prefer, for the moment, to think that there have been more than one drift of culture, though it is not possible to speak with certainty about their origin or lines of migration. It must be admitted, at the same time, that local elements, surviving from the Up. and Final Palaeolithic, also played their part in the culture-development of this phase. This is testified by the fact that the mixed industries (e. g. Inter-Capso-Neolithic) occur, for the main part, in regions where the Final Palaeol. was deeply rooted (such as the N. W. and the Tabelbalat region). Furthermore, we hardly need to point out that the typical Saharan arrow-head industries were for the most part autochthonous. On the other hand, we have seen that certain parts of the Sahara (such as Ouargla, Tabelbalat, etc.), have yielded evidence of unmistakable connections with post-Neolithic and proto-Dynastic Egypt, and to these further references will be made at a later stage. In the S. of the Sahara, it seems that, right from its beginning, the "Neolithic" wet phase was accompanied both by an industry (the Ounanian) whose technique is in some respects like that of the Up. Palaeol., but which is much later in date, and by a group of other facies (in Kjekkenmøddinger) with mixed nature. It is probable that this S. border was also

in connection with Egypt (and, later on, the E. Sudan), though this point still needs elucidation. At any rate, this question, together with the possibility of a culture diffusion along the Sudan Belt (in one direction of the other), will be taken up after we have examined the Egyptian side.

Little can be said about the S. approach of Egypt which is still imperfectly known. The so-called Neolithic cultures recently discovered in Kenya<sup>(1)</sup> may have, in fact, corresponded to historic cultures in the North, as they coincided with the Nakuran wet phase — a later oscillation of the last wet phase of that region<sup>(2)</sup>. Of more interest, from our present point of view, are the microlithic facies of S. E. Abyssinia<sup>(3)</sup>. These appear to have been accompanied by rock drawings of similar nature and technique to those of 'Uweinat and N. Africa. Some of the animals pictured (including even the *«grand buffle africain»*!) appear to have been domesticated (or held in captivity?), and H. Breuil draws the conclusion that we are probably dealing with a region which played an important (though perhaps independent) part in the story of domestication<sup>(4)</sup>. Unfortunately, it is not possible to give these drawings and cultures any definite date, and nothing can be said with certainty about their position as a probable link between similar cultures in South Africa on the one hand, and the Sahara on the other. Perhaps their chronological and cultural status will be better elucidated when we get to know more about the important region of N. Erythrea and the Sudan Plain.

<sup>(1)</sup> On the Gumban A and B and the Njoroan cultures see L. S. B. Leakey (1931), pp. 198-231.

<sup>(2)</sup> The Makalian (including Nakuran) wet phase of E. Africa has been recently correlated with the so-called "Neolithic" wet phase of Egypt and the Sahara [mid. 6th to mid. 3rd mill. B.C.; but with a late oscillation (in 1st mill. B.C. of early centuries A.D.), which may be equated with the Nakuran of E. Africa]; see S. A. Huzayyin (1936), pp. 21 and 88. Recent evidence brought back by an expedition sent by the Cairo University to S. Arabia throws grave doubts on the early dates attributed to the so-called Neolithic cultures of E. Africa (part of which may ultimately prove to be of Christian date); see S. A. Huzayyin (1937), p. 514.

<sup>(3)</sup> On these see H. Breuil (1934), pp. 473-83.

<sup>(4)</sup> H. Breuil (1934), pp. 481-82.



In Nubia proper an important rock-drawing group has long been known (*vide a little supra*). In spite of the concentration of this culture in the river valley (thus acquiring a localized sub-facies) it had marked outside connections, especially with the Early 'Uweinat group. It is not clear, however, whether this culture was in any way connected with a degenerate Sabylian-like industry found at Wadi Halfa (*vide supra*); an industry which, as a facies, shows no connection with the microlithic (surviving Final Palaeolithic?) of S. E. Ethiopia. As the physiographic evidence (to which reference has already been made) is definitely in support of the assumption that these drawings were later (perhaps much later) than the typical (Mid.) Sabylian, it is probable that they belonged to a drift later (perhaps much later) than (and different from) that which brought the Sabylian and associated facies (into Nubia) from the North. Other Nubian cultures of more certain date and belonging to the Chalcolithic phase (and later) indicate connections with Egypt. These are the so-called Kubbanian, and the A, B and C Groups of Nubia<sup>(1)</sup>. The first of these (the Kubbanian) is roughly equated with the pre-Dynastic phase of Egypt, while the latter three Groups (A, B and C) are regarded as contemporary with the Old and Middle Kingdoms<sup>(2)</sup>. The beginnings of the Nubian cultures are thought by certain authorities to have been connected with a southward migration of some Badarian folk after the destruction (or dispersal) of this latter culture (perhaps by other cultures developing locally or advancing from further North?) in Up. Egypt proper<sup>(3)</sup>. Whatever may have occurred it is practically certain that during the late pre-historic and proto-historic phases of Egypt, Nubia formed a southern "recess" or "retreat" which received, and preserved for a long time, culture elements advancing (or rather being pushed) from further

<sup>(1)</sup> On these cultures of Nubia see works of H. Junker (1919) and (1920): G. A. Reisner (1910); C. M. Firth (1912), (1915) and (1927) and E. P. Weigall (1907).

<sup>(2)</sup> On their chronological place see O. Menghin (1932), Table on p. 27.

<sup>(3)</sup> See H. Junker (1933), pp. 10 and 19; also G. Brunton (1928), pp. 21 and 38-42, where he implicitly attributes the pan-grave culture of Nubia to some rather degenerate Badarian culture.

North<sup>(1)</sup>. The same rôle was largely assumed by Nubia from that time onwards.

The story of the southern borders of Egypt is therefore rather a complicated one. In late Up. and Final Palaeol. times, Nubia seems to have constituted a culture sub-area of the Sabylian, though it may also have had some connections with S. Sahara. Later on it received, at a certain unknown date, a branch of the widely-spread rock-drawing culture group, whose origin is still a mystery. It should be noted, at any rate, that no trace of the true Neolithic has thus far been found in Nubia. The Cultures that we know are directly derivable from the Egyptian post-Neolithic and early historic civilizations. During the whole of these latter phases the culture diffusion has largely come from the North.

The third and last approach for us to consider is the North-East. On this side we have the Iranian Plateau (and its Mesopotamian borders), on the one hand, and the horn of Syria-Palestine, on the other. Though very important in the late pre-historic and proto-historic culture-sequence of the near East, the former area has so far yielded practically no signs of contact with the earliest (purely Neolithic and very early Chalcolithic) cultures of Egypt. During this phase, the Iranian Plateau and its borders constituted a culture area of their own<sup>(2)</sup>. The rather exaggerated dates first suggested by L. Woolley (e. g. 1928) for the Sumerian and pre-Diluvial cultures of L. Mesopotamia, are now being revised in the light of more recent excavations<sup>(3)</sup>. It is also interesting to note that, as we know them, the earliest cultures of Mesopotamia and Iran are not

<sup>(1)</sup> It was probably during these phases that Nubia had served as a corridor for cultural penetration from Egypt into the Sudan and Negro Africa and perhaps also as far as S. Africa. On elements of this penetration see C. G. Seligman (1932), pp. 457-62 and (1934), pp. 3 and 58-60; also H. Frankfort (1932 a), pp. 445-53 and H. Breuil (1931), pp. 80-81.

<sup>(2)</sup> For recent summaries on Sumerian and Highland elements in the Mesopotamian proto-historic cultures see H. Frankfort 1932 and 1934; also V. G. Childe 1934, pp. 130-203.

<sup>(3)</sup> See especially H. Frankfort 1932 and 1934; also Nature, No. 3412, vol. 135, 1935, pp. 478-79.



of a pure Neolithic form. The properties of copper were known as early as Susa I<sup>(1)</sup>. It is indeed probable that copper was used in this region at an earlier date than in Egypt, but the evidence of the pottery points also to the Iranian cultures (as we know them) as having been of a more evolved type than the earliest (purely Neolithic) cultures of Egypt. At any rate, although the question of absolute chronology between these two main culture-areas of the Near East (L. Nile Valley on the one hand, and Mesopotamia-Iran on the other) cannot be settled as yet, there can be little doubt that the earliest traces of contact between them can be carried only to the Second, *i. e.* Gerzean (and very slightly to the First) pre-Dynastic phase of Egypt (though these relations became fairly well marked only in the proto-Dynastic phase)<sup>(2)</sup>. For all these reasons, we prefer in dealing with the beginnings of Neolithic and Early Chalcolithic civilizations in Egypt to limit our treatment of the N. E. approach to the Syrian Palestinian horn of the Fertile Crescent<sup>(3)</sup>.

The possibility has been recently put forward, of the art of agriculture (at least of Emmer) having first started in this region of Syria-Palestine, hence it spread into N. E. Africa and other regions<sup>(4)</sup>. The problem of the beginning of agriculture is still an open one, and the evidence bearing upon it remains for the most part of an indirect nature. It would perhaps throw more light on the question of early cultural relations between Syria-Palestine, on the one hand, and N. E. Africa on the other, to review briefly the archaeological data available from the former region before we proceed to Egypt proper.

Thanks chiefly to work carried out by D. A. E. Garrod, a mass of information has been accumulating in recent years on the newly discovered

<sup>(1)</sup> See J. de Morgan (1909), p. 203, footnote 1; also V. G. Childe 1929, pp. 129 and 132-33.

<sup>(2)</sup> On these contacts in general see H. Frankfort, 1924. For reference to earliest sign of contact in First pre-Dyn. (or Amratian) times see G. Brunton (1937), pp. 83-4.

<sup>(3)</sup> The Mesopotamian side will be referred to only incidentally in the proto-historic phase.

<sup>(4)</sup> H. J. E. Peake (1928), pp. 54-5 and (1931), pp. 102-07.

Final Palaeolithic industry of the Natufian<sup>(1)</sup>. This industry is characterized by a highly specialized microlithic technique, with small "*lames à dos rabattu*", triangles, crescents, micro-burins, etc. It also includes sickle blades with glazed edge, showing that they were used in cutting silica-bearing straw (like that of wheat). This may of course be taken to indicate that the people knew some form or other of primitive cultivation<sup>(2)</sup>. It is interesting to note, however, that pottery was entirely unknown, while animal remains show no signs of domestication<sup>(3)</sup>. It is not known as yet, whether this industry was autochthonous in Palestine; for the Up. Palaeol. shows no indications of developing into a microlithic facies. It may be recalled, however, that the Natufian shows certain resemblances to the Early microlithic industry of Hilwan. Of special interest is the existence in both industries (and in no other microlithic facies that we know of) of a special type of crescent with its back sharpened (or worked) by careful retouch from both faces<sup>(4)</sup>. The fact that this type (which needs special skill in its making), is very scarce at Hilwan and fairly abundant in the Caves of Wadi al-Mugharah (Mt. Carmel), may perhaps indicate that the Early Hilwan facies is older (or at least less specialized) than that of Palestine. In support of this may be cited the fact that also at Hilwan occur a fair number of long narrow backed triangles and backed blades (compare our Pl. II, Nos. 38-39) which in Palestine are especially characteristic of the lowest level of

<sup>(1)</sup> See D. A. E. Garrod (1931), pp. 9-10, (1932a), pp. 6-9, (1934), pp. 107-08, (1934b), pp. 135-38, and more particularly (1932b), pp. 257-69 and accompanying figures; also more complete final publication by Miss Garrod on Palestinian caves (1937) (which we did not see).

<sup>(2)</sup> The fact that some of the lunates were found in haft indicates that this type of implement (which is exceptionally abundant) was probably used as a sickle. This makes it all the more probable that the Natufians depended for a large part of their supplies upon grain, either from cultivated corns or just from natural fields which they guarded and reaped in season. The fact that they lived mostly in caves may be taken as a safe sign of their being largely sedentary.

<sup>(3)</sup> See D. A. E. Garrod (1934b), p. 138.

<sup>(4)</sup> This gives it a ridged back instead of a blunt one. For this technique see D. Garrod (1934b), fig. 2. Also compare our Pl. II, No. 45.



the Natufian, or proto-Natufian (Mugharat al-Kibarah)<sup>(1)</sup>. When we remember that the microlithic technique of N. Middle Egypt was in all probability developed locally from the Angabyyah facies of the Up. Palaeolithic, it becomes all the more probable that if we assume any relation between Hilwan and Mt. Carmel, the balance of evidence would be in favour of a spreading from Egypt into Palestine.

The importance of this digression into the microlithic industries lies in the fact that there is good reason to think that, chronologically speaking, both the Mt. Carmel and the Hilwan facies represent a survival of microlithic technique into what may be regarded as the Neolithic or Early post-Neolithic phase. D. A. E. Garrod considers the Natufian to have continued perhaps down to about 3500 B. C.<sup>(2)</sup> In Egypt we shall see that a microlithic industry of definite Final Palaeol. descent continued at least to the close of the late Fayyoun industry (Fayyoun B), i. e. approximately about the same time as (or a little earlier than) the Natufian.

In Palestine the Natufian seems to have been directly followed by a series of cultures generally known to workers there (especially French workers) as the "Eneolithic" industries<sup>(3)</sup>. These include the Tahounian, the Ghassoulian, the Jerichoan and the Canaanian<sup>(4)</sup>. The last of these is considered on conclusive archaeological data to have marked the beginning of the Bronze in Palestine and to have coincided with the rise of

<sup>(1)</sup> On the industry of Mugharat al-Kibarah see F. Turville-Petre (1932), pp. 271-76.

<sup>(2)</sup> D. A. E. Garrod (1934 b), p. 138.

<sup>(3)</sup> Though there may be some objections to the use of this term, it certainly is a convenient one to cover the Chalcolithic and Bronze Age industries together with others which actually belong to the same cultural phase though they may not have had any metal. It should be remembered that at this early stage the distinction between true Neolithic, Chalcolithic and Bronze Age was very vague, especially in Palestine where a good deal of survival of cultural elements (even from the Final Palaeolithic) continued at a number of places. [For instances of such survival from one phase into succeeding ones see J. Crowfoot (1937), p. 45 and J. Garstang (1936), p. 68.]

<sup>(4)</sup> On these industries see R. Neuville (1931 c), pp. 1-12 and (1930), pp. 199-216; also A. Mallon (1933), pp. 201-211. See also J. Crowfoot (1935), pp. 174-184 and (1937), pp. 35-50.

the Dynasties in Egypt<sup>(1)</sup>. The Ghassoulian and Jerichoan are considered as Chalcolithic; while the place of the all-important Tahounian still needs definition. So far as present excavations in Palestine and Syria go, however, no traces of the true Neolithic phase have been found as yet<sup>(2)</sup>. Although this may represent only a negative fact that may be disproved by further excavations, it is rather puzzling that practically all surface finds of a seemingly "Neolithic" appearance can be reasonably fitted into known cultures of the Eneolithic phase<sup>(3)</sup>. Many of the sites discovered have yielded metal of some sort, though some have yielded only flints and not even pottery. The flint industry is of special value from our present point of view. On Pl. IV we have inserted a selection representing the

<sup>(1)</sup> See J. Garstang (1935), p. 68.

<sup>(2)</sup> On this absence of the "Neolithic" *Sensu stricto*, see R. Neuville (1930), pp. 201-02, (1931 c), p. 10 and (1933), p. 6; also D. Garrod (1934 b), p. 138. At one site (the City of Jericho), however, the Tahounian is called "Neolithic" because of the absence of any metal. (See J. Garstang 1935, pp. 67-76). But this together with the absence of pottery in the lower layers of the City may perhaps be considered as negative evidence which may not have any definite chronological value. In this respect it is interesting to note that in the Bronze Age level of the same site, only copper is found (see J. Garstang 1935, p. 68), yet the flint industry of that level is unmistakably that of the Bronze. This shows the complexity in the dating of successive culture phases in a country where there has been a good deal of survival as well as some local differences in the abundance or scarcity of certain materials. At any rate, we shall see that so far as the flint industry is concerned the Tahounian has no connection with the true Neolithic industries of Egypt; while (together with its cognate industries of the Palestinian Eneolithic) it has some connections with the post-Neolithic industries of that country (Egypt), *vide infra*.

<sup>(3)</sup> There is little reason to accept E. Baumgärtel's conclusions about the existence of a Campignian facies near Mt. Carmel; see E. Baumgärtel and F. Brotzen (1927), p. 111 and E. Baumgärtel (1928), pp. 105-09 (where she also assumes the existence of the same industry in Egypt and N. W. Africa). An examination by the present writer of the Palestinian material in question (Sammlung F. Brotzen, Vorgesch. Abt., Völkerkunde Mus., Berlin, specimens regist. XI C Dalie I und II) has shown the close relation between this industry (mostly made up of chisels and adzes with bevelled or re-edged working ends) and the Tahounian, Ghassoulian and Canaanian of the rest of Palestine (*vide infra*). Similarly we find no reason for accepting a Campignian industry for either Egypt or N. W. Africa.



various stages of the Eneolithic. Although some of the tools illustrated are more characteristic of one or the other of the Eneolithic stages<sup>(1)</sup>, the industry as a whole may be regarded as a "Group" representing a general cultural phase. We are dealing chiefly with a unifacial blade industry in which bifacial tools are in minority<sup>(2)</sup>. Polishing is little known and is present only in axes with polished working ends (Plate IV, No. 2)<sup>(3)</sup>. Another type of elongated axe (or adze) has its working edge bevelled or re-edged by means of a transversal blow (so-called "*hâches avivées*", Plate IV, No. 1). As we shall see a little later, the technique of resharpening (or rather re-edging) by means of a transversal blow is found also in some of the pre-Dynastic industries of Up. Egypt (Armant-Nag' Hamadi area, see Plate VI, No. 8), though owing to certain differences in shape and other technological details it is difficult to establish any direct connection between the industries of the two countries. Another special class of tools are the arrow-heads which are either of the simple unifacial type (frail blade-points, Plate IV, Nos. 12-16) or of a somewhat degenerate bifacial one (Plate IV, Nos. 10-11). The first type is made of narrow frail blades and has a long tang and sometimes only a shank which is worked by fairly steep trimming. It appears to resemble specimens found in Egypt (associated chiefly with Fayyoun B, *vide infra*) and the S. Sahara (Ounan)<sup>(4)</sup>. The little bifacial (or largely bifacial) arrow-heads are of a banal character and they represent a seemingly degenerate technique. They are interesting, however, in so far as they show marked differences from the true Neolithic bifacial arrow-heads

<sup>(1)</sup> Such as the so-called Canaanian blades (from which the median ridge has been removed); see No. 4 on our Pl. IV.

<sup>(2)</sup> We use the term "unifacial" here (and all through the present work) to indicate tools which have been retouched only along their *edges*, though the work on the edges may have actually been applied from both faces. The term "bifacial" indicates specimens which have been flaked all over both *faces* (or practically so).

<sup>(3)</sup> There is a somewhat superficial resemblance between these elongated axes of Palestine and those of the Fayyoun Neolithic of Egypt (*vide infra*), but the shape and general finish of the tools are not quite identical in both cases.

<sup>(4)</sup> See Pl. III, Nos. 1-4, 8-12 and 15-18.

of Egypt (Pl. V, Nos. 4-10)<sup>(1)</sup>. Knife-blades are abundant in Palestine and are with or without lateral retouch. Sickles resemble the unifacial types of the pre-Dynastic of Egypt (compare Pl. IV, Nos. 8, 9 with Pl. VI, Nos. 2, 5-6), though certain specimens are worked on both faces<sup>(2)</sup>. The burin—an implement which is usually overlooked in industries after the Upper Palaeolithic—is also present in these Palestinian industries (Pl. IV, Nos. 6-7), and it will be interesting to see (a little later) that it also occurs in the pre-Dynastic of Egypt (Pl. VI, No. 7). Other implements not represented on our Pl. IV include the so-called "*racloir en éventail*" which is a flat circular scraper made of a large thin flake (usually with minutely prepared striking platform) of tabular flint and with its edges often trimmed all round<sup>(3)</sup>. This interesting implement affords a useful link with the Ma'adi industry of Egypt (*vide infra*)<sup>(4)</sup>. Other evidence of relations between Palestine (and Syria) and Egypt may be traced in the pottery of the same phase. As we shall see a little later, it is almost generally agreed that the pottery of Middle and Late pre-Dynastic times has some marked affinities with Syria (and even with Mesopotamia)<sup>(5)</sup>. Although it is not known whether the diffusion was from the Syro-Palestinian or from the Egyptian side or whether it reached both countries from a common and still unknown centre, it seems safe to assume that in the case of the flint industry there was reciprocal influence (slight but fairly discernable) from both sides.

To sum up the little that we know about the story of Syria and Palestine we find that the microlithic culture "persisted" in this region (or

<sup>(1)</sup> However, they may not be unlike specimens from the Fayyoun B stage of the later Neolithic of Egypt; Pl. V, No. 11.

<sup>(2)</sup> Specimen No. 5 on Pl. IV is bifacial and in outward appearance it resembles a type of bifacial pointed sickle which started in the Neolithic of Egypt (our Pl. V, No. 1), but which is also known to have continued in pre-Dynastic times.

<sup>(3)</sup> On this special implement see R. Neuville (1931 c), pp. 4-5 and his Pl. III.

<sup>(4)</sup> O. Menghin and M. Amer (1932 a) Pl. LXVIII and LXIX, and O. Menghin (1934) Taf. XXI.

<sup>(5)</sup> On these relations see W. M. Flinders Petrie (1920), pp. 44-50; H. Frankfort (1924), pp. 104 and 118 ff.; A. Scharff (1927), pp. 29-35 and V. G. Childe (1934), pp. 85-129.



at least in Palestine) to a comparatively late date. Although this industry may have been, in some measure, autochthonous, it seems to have had some connection with the Early industry of Hilwan. The Natufian folk of Palestine were almost certainly acquainted with some form or other of agriculture, though it is not likely that they were in contact with any true "Neolithic" culture (with pottery, etc.). Indeed, up to the present, no strictly "Neolithic" facies has been found either in Syria or in Palestine, and the prospect for finding such a culture as a result of future excavations does not seem to be very bright. At any rate no surface finds bearing even slight resemblances to the pure "Neolithic" industries of Egypt or even drastically different from the post-Neolithic industries of this latter country (*vide infra*) have been found in this part of S. W. Asia as yet. It is strange, however, that the so-called Eneolithic cultures, as we know them in this latter region, have an essentially local and highly specialized technique. Apart from certain resemblances they could not be attributed to similar industries either on the Iranian Plateau or in Egypt. If the present search for the "Neolithic" fails in Palestine and Syria, we shall be forced to look for the fore-runner of the Early Eneolithic either to the N. or less probably to the S. of this region <sup>(1)</sup>.

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Now that we have concluded the survey of the approaches of Egypt, we may proceed to a brief account of the Neolithic and post-Neolithic in this latter country. The recent publications on these cultures being so comprehensive, we need give here only the main outline of each of them, laying the main stress on features that may betray affinities with the outside world. Perhaps we can best start with the cultures of the Fayyoun Depression, not because they are amongst the earliest cultures known from Egypt, but because, thanks to recent work by G. Caton-

<sup>(1)</sup> If the search for the "Neolithic" in S. W. Asia fails, would that mean that the "Eneolithic" of that region did not pass through a true "Neolithic" stage? This is of course only a possibility, and it remains still unproven.

Thompson and E. W. Gardner, their relations to climate and physiography have been established on a sufficiently firm basis to justify giving them an approximate date <sup>(1)</sup>. According to Caton-Thompson, the industry may be physiographically and typologically divided into two levels; A and B. Fayyoun A yielded axes and adzes (flaked and polished) of various descriptions (some triangular and having a straight or convex cutting edge, others plano-convex in section), bifacial leaves and points (daggers, javelins, spears), bifacial sickles (some having a bevelled chisel-like transversal end), arrow-heads (triangular in shape or with slightly hollow base or a concave one) and rather crude pottery (with characteristic rectangular dishes and peaked rims) <sup>(2)</sup>. Although the existence of Mediterranean and Red Sea shells indicates wide commercial relations <sup>(3)</sup>, it is interesting to note that no copper was found. The people lived on a combined system of agriculture (with both emmer and barley), fishing and hunting; but domestic animals seem to have played a negligible part in their economy <sup>(4)</sup>. Of special importance also is the fact that the examination of the barley from the granaries has shown that in all probability it was of local N. E. African (and certainly not Asiatic) origin, and that it must have been in cultivation long before the rise of the Fayyoun civilization <sup>(5)</sup>.

<sup>(1)</sup> See their works (1926 a), (1929), and more particularly (1934 b), (with accompanying volume of plates).

<sup>(2)</sup> For account on the flint industry of the Fayyoun in general see G. Caton-Thompson (and Gardner) (1934 b), pp. 19-22. See also our Pl. V, Nos. 1-10. For the pottery see Caton-Thompson (1928 b), pp. 70-89 and Caton-Thompson (and Gardner) (1934 b), p. 35.

<sup>(3)</sup> See G. Caton-Thompson (and Gardner) (1934 b), pp. 87-88.

<sup>(4)</sup> We may note the scarcity of the remains of sheep or goat and the absence of their dung from the settlements. For possible reasons for the negligible rôle played by domestication in the Fayyoun civilization see Caton-Thompson (and Gardner) (1934 b), p. 89.

<sup>(5)</sup> Barley grains recovered from the Fayyoun granaries are practically identical with barley grown to-day in Egypt. "Since there has been no appreciable improvement since neolithic times", so A. Jackson puts it, "a very long time must have been needed for this barley to have developed from a wild grass to the state of



The Fayyoun A is not an isolated culture. As we shall see a little later, it has definite relations with Merimde [Mremdah or Mremdat (Marmadat) Bani Salamah] of the W. border of the Delta and also some affinities with the Badarian of Up. Egypt. It is associated with the 10 m. lake of the Fayyoun and is dated approximately at about 5000 B. C. or rather a little earlier.

The Fayyoun B is a much poorer facies than its predecessor (and, to a very marked extent, its ancestor). It yielded flaked axes and adzes, pebble-butted points and knives (made of tabular flint with cortex left on butt and on part of the back; compare Pl. V, Nos. 12-13), gouges, leaf-shaped javelin-points, celtiforms (ranging from bifacial ovates to acutely piriform shapes), planes, etc.<sup>(1)</sup> An interesting feature is the substitution by the "tanged" arrow-head of the "concave-based" one, so typical of the Fayyoun A facies (compare Pl. V, Nos. 6-10 and 11). It is curious, however, that no Neolithic pottery has been found in the settlements of the B Level. Indeed it is obvious that, in a sense, this phase represents a degeneration of the earlier Fayyoun culture<sup>(2)</sup>. This is also supported by the coexistence with the Fayyoun B of a microlithic (or partly microlithic) culture which makes only a furtive appearance in the A group<sup>(3)</sup>. The microliths are chiefly narrow backed blades (usually long but sometimes quite microlithic), narrow "limaces" (double backed blades or "*lamelles à deux tranchants rabattus*"), trihedral rods and shanked or tanged slender blade-points (compare Pl. III, Nos. 15-23). G. Caton-Thompson inclines to see in this facies a Capsian element settled in the Fayyoun<sup>(4)</sup>. It should be made clear, however, that the geometrical

perfection which this [*i. e.* the Fayyoun] specimen shows: in other words, the origin of agriculture must have been long before the date of the Fayum neolithic period"; see A. Jackson's report in Caton-Thompson (and Gardner) (1934*b*), pp. 46-48, and 88 (reference on p. 48); also his work (1933), p. 652.

<sup>(1)</sup> See G. Caton-Thompson (and Gardner) (1934*b*), pp. 19-20.

<sup>(2)</sup> See G. Caton-Thompson (and Gardner) (1934*b*), pp. 57-58.

<sup>(3)</sup> On this microlithic facies see G. Caton-Thompson (and Gardner) (1934*b*), pp. 58-59.

<sup>(4)</sup> G. Caton-Thompson (and Gardner) (1934*b*), pp. 55 and 90.

forms and the micro-burin (two keynotes of the late Capsian) are conspicuously absent from the Fayyoun<sup>(1)</sup>. On the other hand, the industry shows fairly marked similarities with the microlithic one of Hilwan and Wadi Angabyyah, which differed from the Capsian in having no burins or micro-burins, and very few (and no true) geometrical forms. It is not improbable that as at Hilwan, the Fayyoun facies of microliths persisted for a long time (into Fayyoun B stage), though it did not become overwhelmed by the contemporary and more advanced culture. But the microlithic (or partly microlithic) forms of the Fayyoun are of still more interest in the culture complex of late prehistoric times in Egypt. The shanked or tanged frail blade-points and the trihedral rods occur farther South (where they are somewhat larger in size), especially in the Khargah Oasis (compare Pl. III, Nos. 8-14)<sup>(2)</sup>. It is interesting that these peculiar implements, especially the frail blade-points, are most characteristic of the Ounanian industry of the S. Sahara<sup>(3)</sup>, and that some forms of them are also found in the Eneolithic industries of Palestine (*vide supra*, also Pl. IV, Nos. 12-16, especially 13 and 15-16). Of course it may be contended that the existence of these types of implements in such rather widely separated regions as Ounan, Khargah, Fayyoun and Palestine may have been due purely to chance or independent discovery; but the facts that they (especially the shanked points) do not occur in any other (surviving) Final Palaeol. industry that we know of, and that at Ounan they exist almost unmixed with any other facies (unlike the case in Egypt and Palestine) lend special

<sup>(1)</sup> Should these even turn up from the Fayyoun, they are likely to be of very rare occurrence. The present writer has seen one rather uncertain micro-burin in a private collection in Cairo (Ch. Bachatly Eff.) said to have come from the Fayyoun.

<sup>(2)</sup> See Coll. of al-Mat-haf al Misri (Cairo Museum) specimens regist. 64257-70 (also photographed in C. T. Currelly 1913, Pl. XXXVII) and 55632-35 and 59537-38, 41, 50 and 55-59. The prismatic rods of Khargah are much cruder than those of Fayyoun. The latter are sometimes made of natural "Dreikanter" pieces which have been retouched on their three faces.

<sup>(3)</sup> Coll. of the Mus. Trocadéro (now Musée de l'Homme, Paris) specimens regist. 33.19.535-40, 49 and 62. See also our Pl. III, Nos. 1-7.



significance to their distribution. The facts that the trihedral rods of the Fayyom are much better finished than those of either Khargah or Ounan (compare specimens Nos. 6, 9 and 14 and 19-20 on Pl. III), and that the industry of the latter station is on the whole cruder and larger (not really microlithic at all) make it quite probable that the spread of these types was from the S. Sahara into Khargah and thence to Fayyom<sup>(1)</sup> and perhaps as far as Palestine. The spreading must have taken place during the "Neolithic" wet phase when the expansion of many (surviving) Final Palaeol. and other cultures was going on on a large scale.

But the Fayyom B industry had other wide culture-associations. A culture partly similar, though showing certain radical differences, has long been known from Siwah<sup>(2)</sup>. One of the chief similarities between the lithic industry of this latter and that of the Fayyom is the extensive use of points and knife-points made of tabular flint. In Siwah, however, the broad willow leaf and the narrow javelin (with plano-convex section) assume a distinctly local character. As in the Fayyom, there is a microlithic (or semi-microlithic) industry made up almost exclusively of long backed blades and long triangles; but the contemporaneity of this industry with the Neolithic one is not certain. Other Fayyom B affinities are to be found sporadically in the W. Sahara (Tabelbalat, etc.). There, as we have already mentioned, we find knives made of tabular flint on the same technique as in Fayyom B (i. e. with cortex left on butt or on butt and one of the sides) (compare Pl. V, Nos. 12-15), and also other probably later Egyptian influences. Of these latter, the pistiliform arrow-head (see Pl. V, Nos. 28-32) links up with the proto-Dynastic (or perhaps Late pre-Dynastic) phase.

The Fayyom B is associated with the 4 m. Lake level and the beginning of the -2 m. level of the Fayyom; and it may be approximately dated

<sup>(1)</sup> The writer is informed by a certain resident in Luxor that implements which almost certainly belong to the shanked type have been found at Laqitah in the desert to the E. of Qina.

<sup>(2)</sup> See Mus. of Arch. and Ethn. (Cambridge) Coll. given by C. W. Cunnington, specimens regist. 24-1114 (also 24.1113 for microliths). See also reference in G. Caton-Thompson (and Gardner) (1934 b), p. 94.

as 4500 B. C. It may have been partly contemporary with (and was almost certainly superseded in the Fayyom by) ordinary pre-Dynastic facies similar to those to be mentioned later from the Valley itself<sup>(1)</sup>.

Another purely Neolithic industry of L. Egypt is that of Merimde Beni Salame (Mremdat Bani Salamah)<sup>(2)</sup>. It may save repetition to say that in practically all its essentials this industry is identical with the Fayyom A culture. A close examination of the flint industry may perhaps show that although there is a number of finely finished specimens, there are also many leaf-points of rather cruder workmanship than in the Fayyom. On the other hand, Caton-Thompson finds reason to think that the ceramic technique of Merimde is definitely in advance of that of Fayyom<sup>(3)</sup>. However this may be, it is evident that the two industries belong to one and the same culture-group and phase<sup>(4)</sup>.

Certain ethnographic differences between Merimde and Fayyom A are perhaps worth mentioning. The relative abundance of the sickles (as compared with arrow-heads) at the former, may suggest that the people depended more on cultivation than on hunting. Also the fact that remains of pig are fairly abundant there<sup>(5)</sup>, while they are scarce in the Fayyom, may indicate that domestic animals played a more prominent part in their economy<sup>(6)</sup>. But the most important difference

<sup>(1)</sup> It may thus be noted that the Fayyom B can be regarded as "Neolithic" only in so far as it yielded no metal. Chronologically speaking, however, it was in fact contemporary with Early Chalcolithic in the Valley proper.

<sup>(2)</sup> On this see works by H. Junker (1928), (1929), (1930 a), (1932) and (1933): also O. Menghin (1933), pp. 82-97 (where he makes a comparison with Ma'adi). See also material in the Kunsthist. Mus. (Vienna) and the Mat-haf al-Misri (Cairo Museum).

<sup>(3)</sup> G. Caton-Thompson (and Gardner) (1934 b), p. 92.

<sup>(4)</sup> See H. Junker (1929), pp. 180-84; and G. Caton-Thompson (and Gardner) (1934 b), p. 91.

<sup>(5)</sup> See H. Junker (1929), p. 218; also O. Menghin (1933), p. 88, where this latter writer makes the interesting generalization that whereas the pig culture was notable in L. Egypt, pig remains are scarce in Up. Egypt. His remarks, however, about the abundance of pig remains in the Fayyom do not seem to be corroborated by statements by Caton-Thompson (and Gardner) (1934 b, pp. 25, 34 and 89).

<sup>(6)</sup> There is no reason to consider the abundant bone remains of Merimde as being those of hunted wild boar.



between Fayyoun and Merimde lies in the arrangement of the settlement itself. In the former region the settlements were not only small in size (and scattered along the edge of the Lake), but no "plan" of the habitations could be established. Merimde, on the other hand, was a huge village and had its huts arranged in definite rows, leaving a lane between<sup>(1)</sup>. It is clear that this indicates a higher social organization on the borders of the Delta than in the Fayyoun<sup>(2)</sup>. Also in Merimde the burials lay within the village<sup>(3)</sup>, while in the Fayyoun the settlements have yielded no such burials. Caton-Thompson suggests that the dampness of the soil in the settlements by the side of the Fayyoun Lake may explain the non-existence of burials amongst the huts; and of course this may be supported by the fact that the granaries in the Fayyoun were placed at a high level above the Lake<sup>(4)</sup>. Unfortunately no burials, even outside the settlements, have been found in the Fayyoun as yet<sup>(5)</sup>; and the question of any ethnological differences (such as methods and conditions of burial and other features that are not governed by the milieu) must remain an open one.

Another N. Egyptian culture, which seems to be directly connected with the Fayyoun A and Merimde industries in that of al 'Umari, to the N. of Hilwan<sup>(6)</sup>. Unfortunately, this site has been only very partially excavated, and hardly any clear information is available. All that can be said from the examination of the pottery and the flint industry is that it links up with the Early Neolithic cultures of the western side of the river.

<sup>(1)</sup> This is perhaps the earliest "plan" of a village to be discovered. See H. Junker (1933), pp. 57-64 and Fig. on p. 59.

<sup>(2)</sup> It must have meant something in a prehistoric village that the villagers did not build-up their huts hap-hazard, but according to plan.

<sup>(3)</sup> On such burials see H. Junker (1933), pp. 72-77.

<sup>(4)</sup> See G. Caton-Thompson (and Gardner) (1934 b), p. 91.

<sup>(5)</sup> One such burial is reported (May 1937) to have been found by a certain Mr. Townsend and others, but the association of this burial with the Fayyoun culture is still unproven.

<sup>(6)</sup> On this see P. Bovier-Lapierre (1926), pp. 266-82 and (1926 a), p. 306; also private collection of same author (Collège des Jésuites, Cairo).

The last settlement for us to consider in this part of Egypt is Ma'adi<sup>(1)</sup>. This represents a much later industry which falls well within the Chalcolithic. Its flint industry contains a few bifacial pieces; but, in the main, it is made up of blades which are either simple or slightly retouched on the edge<sup>(2)</sup>. This may be sufficient in itself to separate it from the true Neolithic industry of Fayyoun A and Merimde (and al 'Umari) and to link it to the "pre-Dynastic" flint facies<sup>(3)</sup>. It is interesting that the typical hollow-base arrow-head of the "Neolithic" is absent and that its place is taken by other types of pre-Dynastic and proto-Dynastic times<sup>(4)</sup>. There are also scrapers of various descriptions, which include the "*racloir en éventail*" type (see O. Menghin and M. Amer, 1932 a, Pl. LXIX, Nos. 1 and 2 and Pl. LXX, Nos. 1 and 2) which—as we have already seen; *vide supra*—occurs extensively in the Eneolithic (especially Early Bronze) of Palestine. Another implement which, after being absent from the Neolithic and presumably also the early Chalcolithic of Egypt, appears in Ma'adi (and some other pre-Dynastic settlements, *vide infra*) is the burin<sup>(5)</sup>. Interestingly enough, this implement is also known from the Eneolithic of Palestine<sup>(6)</sup>. The people of Ma'adi seem to have used

<sup>(1)</sup> On this see O. Menghin and M. Amer (1932 a) and (1936); and O. Menghin (1932 d), pp. 143-47, (1932 f), pp. 150-54, (1932 g), pp. 108-09 and (1934), pp. 111-18; and M. Amer (1932), pp. 5-16; (1933), pp. 140-43 and (1936 a), pp. 8-17. Also collection of Geog. Dept. (King Fuad I<sup>st</sup> University, Cairo).

<sup>(2)</sup> See O. Menghin and M. Amer (1932 a), Pl. XLIX-LVII, and (1936), Pl. LIII-LXI.

<sup>(3)</sup> For the difference between the true "Neolithic" (bifacial) and the pre-Dynastic (largely unifacial) techniques, contrast our Plates V, Nos. 1-10 and VI, Nos. 1-6. (See also S. A. Huzayyin, 1937, pp. 193-199.)

<sup>(4)</sup> See O. Menghin and M. Amer (1932 a), Pl. LVI, Nos. 12 and 13; compare with our Pl. V, Nos. 28-30 (pistiliform type). It may be added that pre-Dynastic fish-tail knives have also been found at Ma'adi; see O. Menghin (1934), Taf. XX a. Two transversal (microlithic) arrow-heads have also been discovered in the 1939 season of digging.

<sup>(5)</sup> Numerous specimens of this special implement can be identified in unpublished material from Ma'adi. The burin has also been found in the pre-Dynastic settlement of Armant in Up. Egypt (to be mentioned later). (See also our Pl. VI, No. 7.)

<sup>(6)</sup> See R. Neuville (1933 a), p. 130 and Fig. 14, Nos. 5 and 6 (and our Pl. IV, Nos. 6 and 7).



copper fairly extensively, and this was presumably imported from Sinai<sup>(1)</sup>. Other, perhaps less definite, connections with the East are shown in the pottery, some of which may have been imported from Syria-Palestine<sup>(2)</sup>. It is clear therefore that Ma'adi represented a culture of fairly wide contacts<sup>(3)</sup>. Although it cannot be decided with certainty whether the similarities between it and certain Palestinian industries are due to diffusion from or towards Egypt, the latter alternative is (for the present) the more likely. It should be made clear, however, that, taken as a whole, the culture of Ma'adi is distinctly Egyptian in its essentials. In fact, it retains some of the Merimidian traditions not only in pottery, but also in the type of life and the organization of the settlement. As in Merimde, pig breeding constituted an important item in the economy of society<sup>(4)</sup>, while the village itself was exceptionally large (extending over one and a half kilometres) and contained some of the burials within it<sup>(5)</sup>. In its main aspects, therefore, it represented a local Egyptian tradition, which was enriched by outside contacts<sup>(6)</sup>.

<sup>(1)</sup> See O. Menghin and M. Amer (1932 a), p. 48 and M. Amer (1936 a), p. 14 (where reference is also made to the importation of Manganese ore from Sinai).

<sup>(2)</sup> On this question see O. Menghin et M. Amer (1932 a), pp. 26-27; also O. Menghin (1934), p. 143 and M. Amer (1936 a) pp. 11-12.

<sup>(3)</sup> In fact trade seems to have played an important part in the economy of the Ma'adi society (see M. Amer, 1936 a, pp. 11-12). The people cultivated wheat and barley, but so far as the flint industry reveals, the proportion of tools used in cultivation is rather limited. The social economy must have been based on a complex system of cultivation, animal-breeding, trade and some fishing and hunting.

<sup>(4)</sup> An interesting point of difference, however, is that while bones of donkey appear at Ma'adi, they are absent from Merimde. It appears that this animal, which is of African origin, did not reach N. Egypt until the time of Ma'adi; see O. Menghin (1933), p. 88.

<sup>(5)</sup> Human bones were discovered sporadically within the settlement, and an interesting grave was found by Prof. M. Amer in the 1934 season (see M. Amer 1936 a, p. 10 and Fig. 10). It should be noted, however, that unlike the burials of Merimde, that of Ma'adi contained offerings. Another interesting burial was that of a child's skeleton found in a big pot (see M. Amer 1936 a, p. 11 and Fig. 9).

<sup>(6)</sup> The dwellings discovered at Ma'adi were of the ordinary hut-type. But some three artificial cave-dwellings have also been discovered by Prof. M. Amer within the settlement. These were excavated in the virgin soil of detrital sub-aereal formations

The exact chronological place of Ma'adi is difficult to determine. Menghin and Amer have at first<sup>(1)</sup> placed it in the closing stage (Semainian, *vide infra*) of pre-Dynastic times; but Menghin has lately preferred to equate it with the Middle (Gerzean, *vide infra*) and Late (Semainian) stages of that phase<sup>(2)</sup>. As it stands, however, this latter view appears at first to be rather difficult to reconcile with the admitted connections between Ma'adi and the Early Bronze Age of Palestine, as no Palestinian pre-historian would be prepared to place the Early Bronze of that country in the same chronological place as the Gerzean of Egypt<sup>(3)</sup>. It may be assumed, however, that although the culture of Ma'adi may have started during the later part of Gerzean times, its connections with Palestine did not exist before the Semainian stage.

We may now pass on to a brief account of Up. Egypt. The oldest and only pure Neolithic (yielding no traces of copper) culture known from here is the Tasian<sup>(4)</sup>. This culture, however, is still only partially known. Its stone industry includes relatively few bifacial types (and has thus far yielded only one hollow-base arrow-head), which would rather tend to distinguish it both from the "Neolithic" cultures of N. Egypt and from the Badarian of Up. Egypt<sup>(5)</sup>. The existence, however, of a special

(cemented coarse sands with other angular surface-wash material). See M. Amer 1936 a, p. 9 and Figs. 3 and 4. Such artificial sub-terranean dwellings have not been previously recorded from prehistoric Egypt. Could their existence reflect further on connections with Palestine, where (natural) cave-dwellings were fairly common in prehistoric times? This, however, can only be suggested as a remote speculation.

<sup>(1)</sup> O. Menghin and M. Amer (1932 a), pp. 56-59.

<sup>(2)</sup> O. Menghin (1934), pp. 117-118.

<sup>(3)</sup> Indeed evidence has been brought up recently (from Jericho) that the rise of the Bronze Age in Canaan was contemporary with that of Dynastic Egypt (or at least with the closing stages of the pre-Dynastic phase); see J. Garstang (1936), p. 68.

<sup>(4)</sup> On this see S. Gabra (1930), pp. 147-58; also recent publication by G. Brunton on "Mostagedda", London, 1937.

<sup>(5)</sup> On the flint industry see S. Gabra (1930), pp. 155-57 and Pl. II and G. Brunton (1937), pp. 7-33 and Pl. XXVI-XXVIII. Also Coll. of al-Mat-haf al-Misri (Cairo Museum) and the Brit. Museum (London).



type of polished axes of siliceous limestone which have also been found in the Khargah Oasis and the Fayyom shows that the Tasian was by no means an isolated culture<sup>(1)</sup>. There are also certain rough oval-shaped and elongated chipping-knives made of tabular flint and retouched only on the edges (leaving cortex in centre on both faces)<sup>(2)</sup>. Similar, though perhaps not quite identical, implements have been found also in Khargah<sup>(3)</sup>. The pottery includes some of the rippled pots of Badari, together with some tulip forms (with incised and white encrusted patterns of hatchings) which are characteristic of Tasah. Gabra thinks, however, that in other respects the ceramic industry bears certain affinities—however remote these may be—with Merimde (Mremdah)<sup>(4)</sup>. It seems therefore that although the Tasian represents an essentially Up. Egyptian industry it had certain relations with other parts of Egypt in both the N. and the West<sup>(5)</sup>. Its chronological place may be roughly fixed as the equivalent (at least in part) to the true Neolithic of the North<sup>(6)</sup>.

With the Badarian we pass into the Chalcolithic. Thanks to recent

<sup>(1)</sup> See S. Gabra (1930), pp. 151 and 156 and G. Brunton (1937), p. 32 and Pl. XXVI; compare with G. Caton-Thompson (1934 b), p. 26.

<sup>(2)</sup> See Coll. of Mus. of Archaeology and Ethn. (Cambridge) five specimens regist. 31935. A. E. (from Tasa). G. Brunton (1937, p. 31 and Pl. XXVI, Nos. 41, 44 and Pl. XXVII, Nos. 3, 4, 44, 45, 47, etc.) considers these implements as Tasian, though it is not absolutely certain whether they really belonged to the true Tasian or to a somewhat later phase.

<sup>(3)</sup> See Coll. of al-Mat-haf al-Misri (Cairo Museum) specimens registered 55650, 55652, 58124 and 58151.

<sup>(4)</sup> S. Gabra (1930), p. 154.

<sup>(5)</sup> Although it may be said that some of the northern elements in the Tasian may represent a southward diffusion, the relations with Khargah are not quite clear as yet. From circumstantial evidence, however, it seems more likely that the diffusion of Neolithic elements was chiefly from the Valley towards the Oasis rather than in the opposite direction.

<sup>(6)</sup> It is possible, however, that the Tasian (or certain elements of it) may have survived in Up. Egypt to overlap with the Badarian. (See G. Brunton 1937, pp. 8 and 32, where reference is made to the difficulty in dating Tasian material and to the overlap with Badarian.) The present writer finds reason to think that, in the Mustagiddah area, the survival of Tasian tradition may have continued even into the Early Predynastic (see S. A. Huzayyin, 1937, pp. 196 and 229).

work by G. Brunton and G. Caton-Thompson, the status of this industry amongst the Neolithic and post-Neolithic cultures of Egypt can be fixed with more certainty<sup>(1)</sup>. The lithic industry is chiefly characterized by its bifacial forms which include points, javelins and arrow-heads<sup>(2)</sup>. These latter may be linked up with Fayyom hollow-base types. The points, on the other hand, are of a more specialized technique, and find their parallel only in the Khargah region<sup>(3)</sup>. Simple flakes are not lacking, and are found even in graves (suggesting that they were usable). The pottery is of exceptionally fine quality and form. Some of the specimens are more finely finished than any made later<sup>(4)</sup>. It falls into several categories including polished Black-Topped (grey-brown or red), polished Red and all-Black<sup>(5)</sup>. So far as is known the only parallels with this pottery (or rather part of it) are to be found in the following phase (the Amratian), to which reference will be made shortly. The people of Badari cultivated emmer and probably knew the domesticated (?) ox, sheep, and goat<sup>(6)</sup>. Remains of pig also occur, but they are far scarcer than in the settlements of L. Egypt (Merimde and Ma'adi). The Badarians seem also to have had wide commercial relations, ranging to the Red Sea (from which shells were procured) and perhaps even as far as Syria<sup>(7)</sup>. Human bone remains suggest prognathism, but the similarities with the negroid types of the S. are so distant and slight that in

<sup>(1)</sup> See work of G. Brunton and G. Caton-Thompson (1928); also G. Brunton (1929), pp. 456-67 and (1937).

<sup>(2)</sup> There can be no reason to think that the Badarian flint industry is derived from the Tasian. The pottery of the two cultures shows marked affinities, but it is interesting to note that the human remains associated with the two groups show marked physical differences. It is probable that we are dealing with two ethnic and cultural groups which may have come into contact with each other during the final stages of the Tasian. See G. Brunton (1929), p. 466 and (1937), pp. 32-33.

<sup>(3)</sup> See G. Caton-Thompson (1931 a), Fig. 1.

<sup>(4)</sup> See G. Brunton (1929), p. 463.

<sup>(5)</sup> On the classification of this pottery see G. Brunton (1928), pp. 20-26.

<sup>(6)</sup> See G. Brunton (1928), p. 38; and G. Caton-Thompson (1928), p. 77.

<sup>(7)</sup> Syrian connections are suggested by the existence of four handled pots of hard pink ware. There are also basalt vases (probably from somewhere in N. Egypt). See G. Brunton (1928), p. 41.



no way do they suggest a direct connection between the two<sup>(1)</sup>. Indeed, even if we admit that the Badarians had in them certain elements from the S. E. Desert of Egypt and perhaps the E. Egyptian Sudan, their connections with the N. cannot be overlooked. Of special interest, however, is the fact that when the Badarian culture came to an end in Up. Egypt proper, certain elements of it seem to have been pushed southwards into Nubia, where they survived well into the late pre-historic culture phase of that region (*vide supra*).

So far as chronology is concerned the Badarian culture may be placed at a slightly later stage than the (Tasian and the) true "Neolithic" of the North; but it is certainly earlier than the first "pre-Dynastic" stage (Amratian, *vide infra*).

Another recently excavated Up. Egyptian industry which bears some connections with Badari, but whose date may be roughly fixed as Early and Middle pre-Dynastic, is that of Armant<sup>(2)</sup>. Some Badarian pottery was found in the settlement, but there is no conclusive evidence as to its Badarian date. Other types of pottery may be correlated with Early and Middle pre-Dynastic ware. The flint industry is, on the other hand, of very special character (compare Pl. VI, Nos. 5-8). It is made up mostly of axes with a sharpened or re-sharpened "tranchet" (made by striking a transversal flake off the cutting edge of the tool—compare Pl. VI, No. 8), blade sickles (Pl. VI, Nos. 5-6), scrapers of various descriptions, triangular gouges with plano-convex section (similar to those of Fayyoun B), and, last but not least, burins (Pl. VI, No. 7). Bifacial types are rather rare, and so are arrow-heads. Simple and retouched blades (including the sickles) are fairly well represented<sup>(3)</sup>. So far as the

<sup>(1)</sup> See B. N. Stoessiger (1927), pp. 110-150, especially, p. 147; also G. Brunton (1928), pp. 20 and 68. In this connection it should be remembered that the hair is generally wavy, with a few cases of either straight or curly hair.

<sup>(2)</sup> See Sir Robert Mond and O. H. Myers (1937).

<sup>(3)</sup> The flint industry of the Armant settlement has been studied in detail by the present writer; see S. A. Huzayyin (1937), pp. 201-225 and 231-250. Among the most debatable classes of tools found there are big boring implements with long and neatly prepared necks and well sharpened working tips (*ibid.*, pp. 212-14 and Pl. LVIII, Nos. 38-43 and LXIV, Nos. 32-37). It was then suggested that these implements

material goes, only two ornamental copper pins were found, but there is circumstantial evidence that other types of copper tools were used<sup>(1)</sup>. A flint industry very similar to this has been collected by Vignard from the surface of a station near Nag' Hammadi, and—on the evidence of the burin—he took it to be of Aurignacian technique<sup>(2)</sup>. Of course his conclusions are no longer tenable, now that this lithic industry has been found in definite association with pre-Dynastic pottery, etc. at Armant. Indeed, sharpened and re-sharpened axes ("haches avivées") similar to those of Nag' Hammadi have been known from pre-Dynastic kitchen midden material (at Naqadah) since the close of last century<sup>(3)</sup>. Unfortunately these latter finds (which also include triangular gouges) were discovered before any detailed information about the pre-Dynastic phase was available, and little is known about the stratification or the conditions of the settlement. At any rate there is reason to think that they represent

may have served as dibbles or digging picks (used in making holes in the ground for burying seeds in cultivation). The writer is now more inclined to consider them as big borers used for making holes or slots in wooden handles in which axes, adzes, etc. were hafted. In a recent visit to the Copenhagen National Museum a few specimens of big borers almost identical (typologically) with Egyptian ones were noticed by the writer. One specimen is registered as belonging to the Maglemose culture, while a few are attributed to the Kjekkenmoeding phase (e.g. specimen regist. A 1994 in case 7, Room 2) or are of uncertain date (e.g. specimen regist. A 35432 in case 19, Room 1). See also T. Mathiassen (1934), Pl. II. It is probable that these Danish implements were used for making holes in horn handles of axes, etc.

<sup>(1)</sup> Verbal information kindly given by O. H. Myers; also Sir Robert Mond and O. H. Myers (1937), p. 190.

<sup>(2)</sup> See Ed. Vignard (1929), pp. 299-306 and accompanying Figs.

<sup>(3)</sup> See J. de Morgan's work (1896); also Collections of the Inst. de Paléon. humaine (Paris), specimens regist. 1919.1 (pub. in H. Breuil, 1931, p. 85 and fig. 64), and of the Völkerkunde Museum (Vorg. Abt.) specimens regist. X 40-45 (pub. in E. Baumgärtel and F. Brotzen, 1927, pp. 106-09 and Abb. 2). As we have already mentioned (*vide supra*, also our Pl. IV, No. 1) elongated "haches avivées", of a different type and technique also occur in the Eneolithic of Palestine (see A. Mallon, 1925, fig. III, No. 22; also Sammlung Brotzen in the Vorg. Abt. of the Völkerkunde Museum, Berlin, specimens regist XI C Dalie I und II). So far as we can judge from a comparative study of the Egyptian and Palestinian industries, they seem to belong to two different facies.



an industry closely associated to those of Armant and Nag' Hammadi. It seems that, during at least part of the pre-Dynastic phase, the region between the latter two stations (on the western side of the Qina bend of the Nile) constituted a culture-area on its own. A few links, however, are provided with some newly discovered industries at Mustagiddah (Moustagedda near Badari and Tasah on the eastern bank of the river)<sup>(1)</sup>, with the Khargah region<sup>(2)</sup> and even with the Fayyoun B culture in the North<sup>(3)</sup>. It may be, therefore, stated that although this Armant-Naqadah-Nag' Hammadi culture may have been distinctly local and Upper Egyptian in origin and character, it was not entirely out of touch with other areas (even in the North). As already mentioned, the date of the Armant settlement may be roughly stated as Early and Middle pre-Dynastic, though it is possible that the culture, especially at Naqadah, continued right through Late pre-Dynastic times. The fact that, as we shall presently see, its lithic industry is different (in many respects) from any that we know from the ordinary pre-Dynastic cultures (*vide infra*), indicates that this latter phase may prove to be of a more complicated nature than hitherto supposed.

The culture-groups of the ordinary "pre-Dynastic" (*sensu stricto*) phase and their outside relations have been the subject of extensive studies<sup>(4)</sup>. Except for certain complications, to be referred to later on, and

<sup>(1)</sup> Here were found both re-edged axes and planes. See G. Brunton (1937), Pl. XXVII-XXVIII.

<sup>(2)</sup> In Khargah were found re-edged axes and big borers. Information kindly given by G. Caton-Thomson. See also her forthcoming publication (with E. W. Gardner) on Khargah in the *Mém. de l'Institut d'Égypte* (?), Le Caire.

<sup>(3)</sup> The link with the Fayyoun B is represented by the plano-convex gouges or planes. For specimens from the Fayyoun see G. Caton-Thompson (1934 b), p. 20 and Plates XXXIV, 8-10 and XXXV, 1-4, 7 and 9.

<sup>(4)</sup> See especially W. M. Flinders Petrie (1920), pp. 46-50, and A. Scharff (1927), pp. 15-46. Also comparative studies by H. Frankfort (1924). We use the term pre-Dynastic here in the strict sense used by Flinders Petrie, and which includes the three classic stages of the Amratian, Gerzean and Semainian. We differ, however, from Petrie on matters of absolute chronology and on certain other points of detail (*vide infra*, Section III of present article).

for his exaggerated absolute chronology, the original scheme worked out by Flinders Petrie still holds good. It is generally agreed that the Amratian (Early pre-Dynastic) represents an essentially local (Egyptian) development. It is now known from a fairly large number of settlements from Badari southwards. Its flint industry differs from that of Badari in the fact that it is predominantly unifacial. There are some bifacial tools but they are distinctly in minority. There is an abundance of simple blades and scrapers. The industry has so far yielded no flaked and re-edged axes (of the Armant type); but it includes mace-heads which were never found in the Armant-Nag' Hammadi area. There is also a relatively small number of polished axes. But the pottery of this stage is of special interest. Its chief characteristic ware is the Black-Topped, which, as we have already seen, occurs in the Badarian. Some of the vases and amulets bear representations of such animals as crocodiles and scorpions<sup>(1)</sup>, which may indicate the existence of a totemic cult. A number of these depicted symbols continue in later times as clan-ensigns and emblems of deities. In spite of its local character, however, the Early pre-Dynastic culture of Egypt had fairly wide commercial relations with the outside world. Besides gold from Nubia, copper and malachite from Sinai, wood came from Syria and obsidian and (rarely) lapis lazuli from further East<sup>(2)</sup>.

A real change, however, takes place with the Second pre-Dynastic (Gerzean) stage<sup>(3)</sup>. The flint industry becomes much more refined. To this stage belong the fine and famous rippled knives and the so-called "fish-tail" knives<sup>(4)</sup>. Both these types combine the grinding and the flaking techniques as they must have been first roughly chipped, then ground to the required shape and then re-flaked anew. This combination may have been, in some way or other, descended from the somewhat similar, though coarser, dual technique which characterized the

<sup>(1)</sup> See J. Capart (1905), pp. 139 f.

<sup>(2)</sup> See V. G. Childe (1934), p. 73; see also G. Brunton (1937), pp. 83-84.

<sup>(3)</sup> For a good account of this stage see A. Scharff (1927), pp. 29-38.

<sup>(4)</sup> G. Brunton (1937, p. 90) mentions some fish-tail knives which he thinks may perhaps belong to the Amratian. The date of these specimens, however, is not certain.



polished and re-flaked axes of the Fayyoun A. The mace-heads of this stage are globular and pear-shaped while those of the Amratian were flat and disc-shaped<sup>(1)</sup>. Simple blades and scrapers continue to abound, but we have in this stage a new and special type of knives with alternate lateral retouch (*i. e.* worked on the upper surface along one edge and on the lower, flat, one along the other, *e. g.* No. 1 on our Pl. VI). Like the Amratian, however, there is an absence of planes (plano-convex gouges) and of axes (an absence which distinguishes it from Armant). But the chief change from Early to Middle pre-Dynastic is still better marked in pottery. The Black-Topped and the Red-polished wares, which reached their zenith in the Early stage, begin to give way to new types of a different technique. The white cross-lined pattern goes out altogether. Its place is taken by the Decorated pots, which—judging from both their shape and their decoration—form imitations of a stone-vase technique. There are also some theriomorphs and spouted vases, which probably represent contact with Syria<sup>(2)</sup>. Of more interest still are the much discussed Wavy-Handles. Frankfort has put forward the view that these were imported (containing oil) from Syria, while Junker believes that they were made in Egypt<sup>(3)</sup>. Scharff, on the other hand, thinks that the evolution of this type in Syria and Egypt is not quite the same and that consequently it may represent a common product of both countries<sup>(4)</sup>. There can, at any rate, be little doubt that the Gerzeans had wide commercial and cultural contacts. The fact that their culture was centred mainly in northern-Middle Egypt, and does not seem to have penetrated towards Nubia indicates that in all probability they were of northern origin. It is quite likely that their original homeland was in the Delta and its bordering deserts (especially the E. side), but of course this point still needs archæological confirmation.

<sup>(1)</sup> On this difference in mace heads see W. M. Flinders Petrie (1920), p. 22.

<sup>(2)</sup> The animals represented by these vessels (such as the hippo), however, are distinctly Egyptian. It may be stated, therefore, that although the technique may have been borrowed from Syria, the pattern and its execution were Egyptian.

<sup>(3)</sup> Compare H. Frankfort (1924), p. 19 with H. Junker (1928 *a*), pp. 865 ff.

<sup>(4)</sup> A. Scharff (1927), p. 32. See also reference to this problem of the Wavy-Handles in O. Menghin and M. Amer (1932 *a*), pp. 26-27.

The last pre-Dynastic stage is the one known as the Semainian. During this stage commercial relations with S. W. Asia (Mesopotamia) were much increased<sup>(1)</sup>, but Scharff thinks that apart from this the Samainian was primarily the result of a fusion of the Amratian and the Gerzean<sup>(2)</sup>. Indeed, the real importance of this stage is that it was preparatory to the rise of the Dynasties. The Delta which, as we have already inferred, seems to have contributed immensely to the development of the earlier (Gerzean) culture, continued to provide an important field of development. Unfortunately, the impracticability of any excavations in this mud-coated region makes it impossible to reconstruct a real picture of its cultural evolution. The fact that many of the northern culture elements introduced into Up. Egypt cannot be satisfactorily traced to Asiatic origins may throw indirect light on the part which the Delta played at that time. But the traditions and legends which survived into early historic times leave no doubt as to the importance of this northern region<sup>(3)</sup>. The various versions of the struggle between Osiris (and Horus), on the one hand, and Seth, on the other, point to the fact that during certain intervals the Delta stood at a higher political (and cultural) level than the South<sup>(4)</sup>. It is true that these legends do not appear in Egyptian records until much later times (Osirian family not being recorded before the 6th Dynasty); but they almost certainly reflect events that happened before the dawn of history. Indeed mythology at this stage must be relied upon to supplement incomplete archæological data. In the absence of adequate archæological material pertaining to the late

<sup>(1)</sup> On these relations see H. Frankfort (1924), pp. 118 ff.

<sup>(2)</sup> A. Scharff (1927), pp. 38-46.

<sup>(3)</sup> When King Narmer conquered Saïs, the Capital of the Delta, he is reported to have captured "100,000 prisoners, 400,000 oxen and 1,422,000 goats". See P. E. Newberry (1923), pp. 183-85. Although these figures may be exaggerated, they seem to indicate that even the extreme North of the Delta (where Saïs lies) was well inhabited by that time. Some authors, like E. von Rosen (1929, pp. 3-20), go as far as to infer, from legendary accounts and also from comparative study of Early Dynastic architecture, that the Dynastic civilization started among "the marsh-dwellers of the Delta".

<sup>(4)</sup> On some versions of these legends see A. Moret (1927), pp. 60-100.



prehistoric and the protohistoric phases (especially in the Delta and its borders), we feel justified in calling upon legendary accounts to fill in the gap. This may not give us an accurate picture of the story, but at least it helps us visualize the main events of these obscure phases. According to these legends, Osiris represented the God of the Nile (Delta), of Corn and of Vegetative Growth. Seth, on the other hand, was the God of Desert and Destruction, the eternal enemy of the Nile and of vegetational life. Seth killed Osiris, but he was fought by Horus, the posthumous Son of Osiris (and Isis). Seth fled to the South and became the First Lord of Ombus (Naqadah region). On one occasion, the God Geb (of the Great Ennead of Heliopolis) is reported to have settled the differences between Horus the Elder and Seth; "I have given you your portions", He said, "Upper Egypt to Seth, and L. Egypt to Horus"<sup>(1)</sup>. On another occasion He is reputed to have judged that Horus the Child<sup>(2)</sup> should combine the Red Crown of the North and the White one of the South<sup>(3)</sup>. This might have corresponded to a moment when the political (and cultural) balance was in favour of the Delta, as indeed may be gleaned from the adoption by the South of certain cultural elements from the North (e.g. the cult-ritual of Horus)<sup>(4)</sup>. But ultimately (perhaps for strategic reasons?) the victory was destined to fall to the Upper Egyptians, who became the Masters of the United Land. Narmer<sup>(5)</sup> took over the divine rights and duties of the Servants of Horus, who had before inherited those of Horus and Osiris. The historic Kings of Egypt filled in the place of the Gods of the proto-historic phase.

<sup>(1)</sup> See A. Moret (1927), p. 71.

<sup>(2)</sup> Horus seems to have had more than one personality.

<sup>(3)</sup> See A. Moret (1927), p. 93.

<sup>(4)</sup> See H. Junker (1933 a), pp. 13-18.

<sup>(5)</sup> We need not go here into all the controversy of whether it was Narmer or Aha that represented the First King of the United Land.

## III

### EPITOME OF NEOLITHIC AND POST-NEOLITHIC CULTURES : INFERENCES AND SPECULATIONS.

If we may now summarize the story of the true Neolithic and the post-Neolithic culture-complexes and contacts of Egypt, we find that the former (Neolithic) were represented both in the North and in the South. The earliest that we know of at present are those of Merimde (Mremdah) and Fayyoun A, and their date may be roughly stated as 5000 B. C. or rather a little earlier (see also Table below). Perhaps partly synchronous with them in date, though largely different in culture, is the Tasian of Up. Egypt. As we know them, these cultures are fully developed and show a remarkable degree of technological evolution, especially in the flint of the North and ceramic of Tasah. They have yielded nothing, however, that would link them, even by commercial relations, with cultures outside N. E. Africa.

TENTATIVE TABLE OF (RELATIVE) CHRONOLOGY OF THE NEOLITHIC AND POST-NEOLITHIC CULTURES OF LOWER, MIDDLE AND UP. EGYPT. THE TABLE READS UPWARDS, AND THE TWO DATES GIVEN ARE ONLY APPROXIMATE.

APPROX. DATES.	L. EGYPT AND FAYYOUM.	MID. AND UP. EGYPT.
3300 B. C. (?)...	1st Dynasty. Ma'adi.  Fayyoun B.	1st Dynasty. Semainian } and Armant-Naqadah- Gerzean } Nag' Hammadi facies. Amratian }
5000 B. C. (?)...	Merimde and Fayyoun A.	Badarian. Tasian.

Indeed, the north-eastern approach to Egypt (i. e. S. W. Asia) has so far yielded no "Neolithic" sensu stricto; and the chance for the finding



of such culture in the Syrian-Palestinian side of the Crescent does not seem to be very bright<sup>(1)</sup>. Nor has the western approach (the Sahara and N. W. Africa) yielded any evidence of connection with these early Egyptian cultures. The so-called Early Neolithic of the Sahara and N. W. Africa is largely made up of a mixture of Neolithic and Final Palaeolithic industries; and it appears that many of the former elements (Neolithic) were largely introduced from without<sup>(2)</sup> and were simply imposed upon a surviving Final Palaeolithic. Other clear connections between Egypt and the Sahara belong to the Fayyoun B and the pre-Dynastic phases. As these latter cultures are deeply rooted in Egypt and are only sporadically represented in the Sahara, it is very probable that their connections with other N. African cultures may represent a cultural infiltration towards the West<sup>(3)</sup>. And finally the southern approach (Nubia) seems to have been affected by an early culture-diffusion from further South (which also covered the Sahara), as represented by the rock-drawings; but this seems to have had nothing to do with the true Neolithic. Indeed, apart from the S. E. Desert of Egypt (which is still entirely unknown), the balance of evidence is in favour of regarding Nubia as having largely served as a "recess", where Upper Egyptian culture elements were driven under pressure from the North. There, they long survived after their suppression in Egypt proper by new and evolving cultures.

The oldest Chalcolithic industry thus far discovered in Egypt is that of Badari. It seems to have had certain connections with the Fayyoun A of the North, but, in all its essentials, it was distinctly Upper Egyptian. It was closely followed by the pre-Dynastic phase proper, which was

<sup>(1)</sup> It is not impossible, however, that other parts of S. W. Asia, such as Arabia or the Irano-Taurusian Plateau, may yet yield such purely Neolithic cultures in the future. All indications (such as surface finds, etc.), however, seem to point out that should such cultures be found they will be of a different nature from those of the Neolithic of Egypt.

<sup>(2)</sup> Though from where, it is not fully known as yet.

<sup>(3)</sup> Though it is not impossible that the Fayyoun B and other cultures of the Nile Valley itself (especially Gerzean) may have been affected by some Libyan (and perhaps other Saharan?) elements.

started with the Early or Amratian culture. This latter inherited a good deal from the Badarian, and its domain was chiefly South of Badari. At a later stage, it seems to have been pushed southwards into Nubia, and was superseded (or at least followed) by the Second pre-Dynastic, or Gerzean, group, which represented a new culture phase in Mid. and Up. Egypt. There can be little doubt that it had originally come from the North; and it is quite likely that it may have been partly derived from the Delta or its borders. It had wide culture contacts and certain similarities with Syrian cultures, though opinions differ as to the extent to which these latter represented foreign elements which were imposed upon Egyptian culture. After the Gerzean, comparatively few innovations took place. Commercial relations with S. W. Asia continued, but the last pre-Dynastic (Semainian) stage was largely the result of a more thorough blending of cultural elements. It served as a formative stage which paved the way for the rise of the Dynasties.

Recent excavations have thrown useful light on the complexity of culture in Egypt during late Neolithic and Chalcolithic times. We have already seen that in the Fayyoun Depression a microlithic facies survived well into the B stage (which was probably contemporaneous with the early Chalcolithic elsewhere in the valley). This microlithic facies was largely derived from the local Final Palaeolithic of N. E. Africa (and almost certainly not from the Capsian as is generally surmised); but it seems to have had certain connections with the S. Sahara (Ounan) and S. Libya (via Khargah).

We have also seen that in so far as the so-called "pre-Dynastic" phase is concerned, the succession of cultures in Egypt may ultimately prove to have been much more complicated than hitherto assumed<sup>(1)</sup>.

<sup>(1)</sup> It should be noted here that the apparent simplicity in the culture sequence of pre-Dynastic Egypt as worked out by Petrie was almost entirely based on material from "graves". The new complications have come to light as a result of excavations in "settlements" which offer a very valuable check on "grave material". The remains recovered from the graves of the richer minority of a human group (as represented in a cemetery) are usually out of proportion to those yielded by the poorer graves of the majority. The former may include far too many of the tradable objects



It is probable that besides the successive culture waves which spread along the valley from the North (Delta and its borders) into Up. Egypt, this latter region was producing a facies of its own, which was specially characterized by its flint technique. In spite of similarities in the pottery, the culture of the region of Armant-Naqadah-Nag' Hammadi cannot be satisfactorily fitted within the classic sequence of Amratian, Gerzean and Semainian<sup>(1)</sup>. Regional factors of differentiation must have been at work during this phase when the grouping of the society in the Nile Valley was still largely on a tribal and regional basis. The successive waves of culture invasion and infiltration from the North reached well into the heart of Upper-Egypt, but they never succeeded in entirely ousting older elements. The Northern contribution was chiefly manifested in the form of pottery and stone work as well as certain classes of flint industry (especially those which combine the polishing and re-flaking techniques); but Upper Egypt (or part of it) did not cease to maintain and develop its own tradition, especially in certain highly specialized classes of flint tools. It was not really until the Late pre-Dynastic stage that the ever-increasing movements of commercial and cultural contacts (and the fact that the tribes were more and more forced, or attracted, to descend and settle in the valley itself instead of its borders), have gradually brought about a wider and wider unity. At first local Chiefs were responsible for the irrigation schemes and the protection against the floods, but the need for wider collective effort pressed more and more. There were intervals when—temporarily at least—the Delta and Upper Egypt formed two large and more or less coherent units, each with a special crown or symbol of unity. These were crucial moments in Egyptian proto-history,

which mask the local facies of culture. Also in spite of the fact that objects of everyday use and actually utilised articles are often found amongst grave offerings, there is sometimes the danger that a grave assemblage might represent life "as it should be" and not quite "as it is in reality". A much more accurate idea of the "*genre de vie*" of a human group can be obtained through a thorough and careful investigation of a "settlement" of its living members.

<sup>(1)</sup> This we have largely based on the comparative study of the flint industries. For the relative value of flint groups and of pottery and other classes of remains *vide supra*, our Foreword; also S. A. Huzayyin (1937), pp. 192-93.

though unfortunately our knowledge about them is based more on legendary accounts than on archaeological records. Both Delta and Upper Egypt made their contribution towards the cultural and political unification, but the balance was perhaps slightly in favour of the former as the main sub-region of cultural diffusion. Then came the moment, when, for some reason or other (perhaps strategic) the Lords of the South (who originally borrowed a good deal of their culture from the North) were able to unite the Land under their control. A crucial phase was nearing its end, and history was well on the way<sup>(1)</sup>.

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\* \*

But our conclusions seem to be leading into a *cul-de-sac*. We have summarized the culture complexes and contacts of Egypt during the Neolithic and the Chalcolithic; but apart from indicating that the early Neolithic cultures of Egypt could not have been derived from any of the industries known in neighbouring areas, we have not thrown any direct light upon the tangled question of the origin of these cultures. Some of the earliest groups that we know of, such as that of Merimde, lived in large villages, enjoyed a relatively high standard of material culture, and had a comparatively complex social and religious organization. This must have implied a fairly prolonged phase of evolution, whose remains are still entirely unknown. It is generally thought that the final desiccation in late Upper and Final Palaeolithic times may have forced the wandering groups of hunters (as well as the game itself) to the watering-places (such as river sides and oases), and that this was probably connected with the beginnings of both agriculture and domestication. This

<sup>(1)</sup> It may be noted that in our present synoptic study of the Neolithic and post-Neolithic cultures of Egypt, we have avoided entering into details relating to the racial types belonging to each of the successive cultures. Skeletal material from these phases is available, and in several cases it has been reported upon; but comparative studies with material from neighbouring regions are still a desideratum. We therefore thought it safer, in the present state of our knowledge, to content ourselves with a primarily archaeological survey.



may be a reasonable speculation; but, judging from the climatic and the archaeological data, it does not seem to give a sufficiently detailed or even an accurate picture of the story. We have already mentioned that the Neolithic was marked by an increase in precipitation in Saharan latitudes, and it may be argued with more force that it was the relaxing of the climatic crisis (during the so-called "Neolithic" wet phase from about 5500 B. C. to circ. 2500 B. C.) rather than its intensification (before that phase) that led to the fostering of new cultures and the facilitating of contacts between widely separated groups in otherwise arid regions. Furthermore, it should be noted that the technological study of the earliest Neolithic cultures of Egypt has shown that they had no connection whatever with the Final Palaeolithic facies. All that there is in the way of contact between the two cultures is that certain types of microliths survived and became, later on, mixed, not with the true Early Neolithic of the country (Merimde and Fayyoun A) but with later cultures. A glance at our Plates I and II may be sufficient to show that we have in the late Middle, Upper and Final Palaeolithic of Egypt a complete technological sequence which starts with a diminutive Levallois industry, passes through a stage of steep trimming and mutilation of implements, and finishes with a microlithic facies. This is quite different from the new and independent sequence illustrated on plates V and VI (Neolithic and post-Neolithic). The elaborate and massive bifacial implements of the Neolithic cannot have been directly derived by any simple process of technological evolution from the microliths of the Final Palaeolithic. We are therefore forced to the conclusion that although the Neolithic folk of Egypt must have been descended from some late Upper Palaeolithic ancestry, the conditions under which they developed their new culture were so different from those of their ancestors, that adaptation between man and *milieu* had to follow entirely new lines.

But where is the new *milieu* to be looked for? It is evident that the only alternative that we are left with is the Nile Valley itself. There is one apparently serious objection to this speculation, and that is that the Valley and its Delta were too marshy to be propitious to such a cultural evolution. In answer to this, however, we may recall the physiographic evidence recently brought to light in the Nile Valley. According to

recent investigations the Upper Palaeolithic was marked not only by progressive dryness but also by a process of "degradation" or lowering in the bed of the river in L. Egypt<sup>(1)</sup>. The waters of the drying river were no longer able to inundate its sides and they became more and more confined to a limited bed which they cut down<sup>(2)</sup>. This meant that the flood-plain and Delta of the river were no longer reached by inundations and that lateral and deltaic marshes were gradually drained into the river. In other words, the bottom of the valley and its delta must have been rendered fairly suitable for hunting, fishing and permanent or semi-permanent settlement. But the hunt in the Valley was different from that on the drying Plateau, as the game was made up of hippos, elephants, boars, etc., instead of gazelles, antelopes or ostriches. Hence the need for more advanced types of flint implements than those of the late Upper and early Final Palaeolithic. Of course, for such material as flint the new Valley dwellers had to depend entirely upon the adjoining deserts. But basketry and reed and mat work could all be made from local material. Also pottery, which was unknown in the Up. Palaeol. of the Saharo-Arabian area generally (though it was known elsewhere) could be readily made from local mud. The seeds for

<sup>(1)</sup> This is shown particularly by the cessation of the flowing of the Nile into the Fayyoun Depression and the severing of connection between the two. See works of G. Caton-Thompson and E. W. Gardner (1929), pp. 32-36 and E. W. Gardner (1929a), pp. 371-83 (particularly graphs). Also work of K. S. Sandford and W. J. Arkell (1929) who mention that during this phase there was even an outflow from the Fayyoun Lake into the Nile which was lowering its bed. Also on various processes of degradation and aggradation in the Nile Valley see more recent work of Sandford and Arkell (1933).

<sup>(2)</sup> It may be useful here to recall the two main admitted factors which govern the processes of degradation and aggradation in a river system; namely the change in the supply of water and material (which, if increased would bring inundations and rise in bed, and *vice versa*) and the oscillations in base-or sea-level (which if lowered would increase the degrading power of the river and if raised would help first the formation of marshes and then their silting up by aggradation). We need not, however, go into all the other details concerning differences and lagging in time of degradation and aggradation between L. and Mid. parts of streams (such as the differences between the Delta and Nubia).



cultivation may first have been obtained from the adjoining plateau (probably barley locally and emmer either locally or from the Syrian side?), but the annual rhythm of floods and low-waters (the latter taking place during the growth season of such cereals as barley and wheat) must ultimately have fostered the beginning (or the development) of some form of agriculture (at least in some of the favourable spots such as the edge of the flood plain)<sup>(1)</sup>. Why is it then that all the cultures that have thus far been discovered on the outer "edges" of the Valley and Delta belong either to the fully evolved Neolithic stage or to the Early Chalcolithic? An indirect answer may again be found in the physiographic data. We know that the so-called "Neolithic" wet phase corresponded to the Climatic Optimum of northern latitudes<sup>(2)</sup>. This was a warm phase during which ice-caps were very much reduced and sea-level was appreciably raised (by melting ice flowing to it). The rise of the base-level (mean level of the Mediterranean) put a check on the degradation of the Nile in L. Egypt, and it also decreased the draining power of the lowermost course of the river. Marshes were developed on the sides and in the delta of the river and it was some time before they got silted up by the ordinary process of aggradation. Can we draw the conclusion from this that although the bottom of the Valley and certain parts of the Delta may have been suited for settlement during the earliest stages of the Neolithic (or rather the proto-Neolithic, whose remains are now under the mud), they became less favourable for such settlement during the advanced Neolithic (Merimde, etc.) and the early Chalcolithic? If this be accepted, it would mean that after having established themselves

<sup>(1)</sup> All sorts of vegetable growth would cover the edges of the Valley and Delta immediately after the subsidence of the floods, and fishing and hunting groups may have marked and guarded them till the reaping season was due. This is admittedly not cultivation in the strict sense, but it represents a spontaneous and evolutionary progress towards cultivation proper. This suggestion appeals more to reason because it averts the necessity of a sudden "invention" of agriculture as may be assumed by most current theories on the subject. In the same way we prefer to think that most of domesticated animals may have been first "kept in captivity" before the idea of domestication proper was evolved. However, this is a digression.

<sup>(2)</sup> See S. A. Huzayyin (1936), pp. 19-22.

(and evolved the first elements of the new culture) close to the river-bed and on the Delta, the hunting, fishing, breeding and cultivating groups were forced (from Merimde time onwards) to shift their settlements to the outer edges of the flood-plain which was again becoming marshy near the river. It should be made clear, however, that the unfavourable conditions in the bottom of the Valley and its Delta were not destined to last. The rise of the base-level had ultimately led to an increase in deposition and aggradation. This was further enhanced by the increase in the Abyssinian mud arriving on the lowermost Nile, during the Makalian wet phase of E. Africa [and Abyssinia] (which is equated with the early part of the "Neolithic" wet phase)<sup>(1)</sup>. The flood plain was this time rendered suitable for settlement not by a "lowering" of the bed of the river and an acceleration of the drainage of marshes (as in late Up. Palaeol. and proto-Neolithic times), but by the "raising" of the plain and Delta through the addition of mud. By late-Early and Middle pre-Dynastic times, the process of aggradation must have reached such a stage as to allow the gradual "re-settlement" —if we may use the term—of the Delta and the parts near to the river course. People re-descended into the Delta and flood-plain, and established themselves again nearer the running course of the river<sup>(2)</sup>. The ever increasing pressure on the river side, and the common benefits and dangers that such a movement entailed have all contributed towards the welding of tribal groupings into larger units. At a certain stage L. and Up. Egypt constituted two large political provinces which fought each other for supremacy, until final victory fell to the Masters of Upper Egypt. With the unification of the Red and White Crowns of the North and the South, one of the most crucial phases in the story of Egyptian Society came to its logical conclusion, and the political unity of the Land gave final expression to the more essential geographical—and to a large extent cultural—unity. Thus a movement of intensive localization and specialization

<sup>(1)</sup> See S. A. Huzayyin (1936), Table of correlation and p. 88; also E. Nilsson (1938), pp. 430-433.

<sup>(2)</sup> See also reference to new changes in utilization of valley-bottom in Mid. pre-Dynastic times in G. Brunton (1928), p. 48.



of culture which started in the proto-Neolithic was ultimately destined to bear its fruit in historic times.

#### IV

##### GENERAL SUMMARY AND CONCLUSIONS.

The main results of the present study may be summarily put in the following points :

(1) The *first* specialization of culture we know in Egypt goes as far back as the late Middle Palaeolithic, when an industry which we propose to call "Diminutive Levallois" appeared.

(2) This was destined to bear its early fruit in the Upper and Final Palaeolithic of Egypt whose facies (especially in the Upper Palaeolithic) became different from any we know of outside Egypt. The Final Palaeolithic gradually degenerated during the climatic crisis (dryness) which took place before the so-called "Neolithic" wet phase. Some microlithic forms, however, persisted at certain places (Fayyoun and Hilwan) right into Neolithic and post-Neolithic times.

(3) Both climatic and physiographic changes took place in Final Palaeolithic times and these led to the evolution of a new technique of industry in order to meet totally different conditions of milieu. Part of the wandering groups of the Final Palaeolithic descended the Valley of the Nile—a river which was "degrading" its bed. This marked the beginning of a *second* phase of culture localization and specialization which was quite distinct from the earlier one (of the late Middle and the Upper Palaeolithic). The descent of the tribes heralded the proto-Neolithic stage whose remains we presume to be buried under the coat of alluvium particularly in the Delta region. It was a phase of dryness on the desert confines of Egypt and consequently the country passed through a stage of relative cultural segregation from neighbouring areas. The Egyptian proto-Neolithic was thus "born and nursed" in the Valley itself, and without being affected by any marked outside influences.

(4) At the beginning of the true "Neolithic" phase there was a rise in the sea-level and a decrease in the draining power of the river.

Marshes formed in the bottom of the Valley and in the Delta, and it was some time before they became silted up. The remains of the "Neolithic" proper (and of the Early-Chalcolithic) of Egypt are therefore found on the outside borders of the Valley. The true Neolithic of the L. Nile Valley has so far yielded no appreciable culture connections with the outside world.

(5) But the climatic crisis (which caused the early segregation owing to dryness of desert) was over, and contacts were gradually being established across deserts on all sides particularly with the Sahara (and probably also with the S.E.). Steady contact with the outside world probably started at the close of the Neolithic, but it became more pronounced in the Chalcolithic phase.

(6) During this latter phase, however, intensive local specialization and differentiation of patterns of culture were going on within the Valley and its Delta. This is manifestly brought out by the study of flint industries, especially those belonging to pre-Dynastic settlements (and not only to cemetery-groups). A special stress was therefore laid on the study of flints in the present Essay. On the other hand, it was remarked (see also Foreword) that the examination of pottery and other tradable material has hitherto given a strikingly homogeneous and simple appearance to the sequence of cultural phases along nearly the whole length of the Valley. We thus come to the conclusion that pottery and other easily tradable articles may be more helpful in dating and correlating cultures and contacts, while flint industries are certainly more reliable in tracing local patterns and differentiations of culture. Needless to add, both lines of study are complementary to each other.

(7) But at the same time contact with the outside world went on. The N. E. approach (whose rôle up to now has been rather obscure owing perhaps to lack of data?) became more and more predominant, and Egypt exchanged a good many cultural elements with it. This however enriched Egyptian civilization but never overwhelmed it, and the old "Egyptian" character (of the true Neolithic and Early Chalcolithic) was maintained throughout pre-Dynastic and proto-Dynastic times.

(8) The process of cultural assimilation was also never interrupted by the infusion of cultural elements from outside. It was actually enhanced



by the fact that the Nile had completed the aggradation of its marshy bed to such an extent as to make possible the settlement and habitation of its bottom and Delta. We propose to call this movement (which started about the end of the Early or the beginning of the Middle pre-Dynastic) the "re-settlement" (or at least the re-utilization) of the valley (the first "settlement" being that of the proto-Neolithic phase mentioned in number 3 of the present Summary).

(9) During this new phase of re-settlement common benefits of irrigation and common dangers of floods were doing their work. The need for collective effort in digging canals and building up mud embankments was becoming more and more manifest. The peasant societies were now living in the immediate neighbourhood of the banks of the Nile—Father and Feeder of all. The running waters from the South and the permanent winds from the North fostered and helped navigation in both directions. This crucial and exceedingly interesting "formative" or rather "maturing" stage of Egyptian society was nearing its completion. First a Red Crown in the North and a White one in the South symbolised the dispute for mastery of the two large sub-units of the country. But political unification was not far off, and, at the rise of the Dynasties, it gave final expression to the more essential geographical and cultural unity of the Land. At this juncture we pass from late prehistoric and proto-historic times to plain history, and here we bid leave to the story.

## BIBLIOGRAPHY.

## ABBREVIATIONS.

- An. Eg.* = *Ancient Egypt* (British School of Archæology in Egypt), London.  
*Ann. de Géog.* = *Annales de Géographie*, Paris.  
*A. S. A. Ég.* = *Annales du Service des Antiquités d'Égypte*, Le Caire.  
*Ann. Arch. and Anthropol.* = *Annals of Archæology and Anthropology*, University of Liverpool, Liverpool.  
*Antiq.* = *Antiquity*, A Quarterly Review of Archæology, Gloucester.  
*Anz. phil.-hist. Kl. Ak. Wiss. Wien.* = *Anzeiger der philos.-hist. Klasse Akademie der Wissenschaften in Wien*.  
*Arch. J.* = *The Archaeological Journal*.  
*Bibl.* = *Biblica*.  
*Biom.* = *Biometrika*, a Journal for the Statistical Study of Biological Problems, Cambridge.  
*B. S. A. Eg.* = *British School of Archæology in Egypt* (various publications).  
*B. A. S. P. R.* = *Bulletin of the American School of Prehistoric Research*, New Haven, Conn.  
*B. F. A., Un. Eg.* = *Bulletin of the Faculty of Arts, University of Egypt*, Cairo.  
*B. I. Ég.* = *Bulletin de l'Institut d'Égypte*, Le Caire.  
*B. I. fr. A. or.* = *Bulletin de l'Institut français d'Archéologie orientale*, Le Caire.  
*B. S. P. fr.* = *Bulletin de la Société Préhistorique française*, Paris.  
*B. S. R. Géog. Ég.* = *Bulletin de la Société Royale de Géographie d'Égypte*, Le Caire.  
*C.R. Cong. Intern. Géog.*, Le Caire 1925 et Paris 1931. = *Comptes rendus du Congrès International de Géographie*, Le Caire 1925 (5 tomes pub. 1926) et Paris 1931 (3 tomes pub. 1932-34).  
*Denkschr. Ak. Wiss. Wien, Phil.-hist. Kl.* = *Denkschriften, Akademie d. Wissenschaften in Wien, Philosophisch-historische Klasse*.  
*G. J.* = *The Geographical Journal* (Royal Geographical Society, London).  
*Geol. Mag.* = *The Geological Magazine* (London).  
*Ipek.* = *Ipek, Jahrbuch für Præhistorische und Ethnographische Kunst*, Leipzig.  
*J. E. A.* = *Journal of Egyptian Archæology*.  
*J. P. O. S.* = *Journal of the Palestine Oriental Society*, Jerusalem.  
*J. (R.) A. I.* = *Journal of the (Royal) Anthropological Institute of Great Britain and Ireland*, London.  
*J. Soc. Af.* = *Journal de la Société des Africanistes*, Paris.  
*L'Anthr.* = *L'Anthropologie*, Paris.  
*Liverp. Ann.* = *Liverpool Annals of Archæology and Anthropology*.



- Man.* = *Man*, *A Monthly Record of Anthropological Science*, London.  
*Mitt. D. I. A. A. Kairo.* = *Mitteilungen des Deutschen Instituts für ägyptische Altertumskunde in Kairo* (Wien).  
*Or. Inst. Com.* = *The Oriental Institute of Chicago University, Communications*.  
*Or. Inst. Pub.* = *The Oriental Institute of Chicago University, Publications*.  
*P. Z.* = *Præhistorische Zeitschrift*.  
*Q. S. P. E. F.* = *Quarterly Statement, Palestine Exploration Fund*.  
*Reall. d. Vorg.* = *Reallexikon der Vorgeschichte*, unter Mitwirkung zahlreicher Fachgelehrter, Herausgegeben von Max Ebert, Berlin 1924-1929.  
*Rep. B. A. A. S.* = *Reports, British Association for the Advancement of Science*.  
*Sud. Not. Rec.* = *Sudan Notes and Records*, Khartoum.  
*Surv. Dept. Egypt.* = *Survey Department of Egypt*, Cairo (Reports and Memoirs).  
*Syr.* = *Syria*.  
*W. P. Z.* = *Wiener Præhistorische Zeitschrift*, Herausgegeben von der Wiener Præhistorische Gesellschaft, Wien.  
*Z. Äg. Spr.* = *Zeitschrift für ägyptische Sprache* (u. s. w.), Leipzig.  
*Z. f. Ethn.* = *Zeitschrift für Ethnologie*.

## REFERENCES.

- ADAMETZ, L. (1920), "Herkunft und Wanderungen der Hamiten erschlossen aus ihren Haustierrassen", *Osten und Orient*, Erste Reihe; Forschungen Zweiter Band, Wien 1920.  
 AMER, M. (1932), "Al-Ma'adi qabl al-Tareekh" al-Qahirah (1932) ["Ma'adi in Prehistory", in Arabic], 16 pp.  
 — (1933), "Two seasons digging in the Prehistoric site at Maadi", *B. F. A. Un. Eg.*, Vol. I, Part I, May 1933, pp. 140-43.  
 — (1936 a), "Hafayir al-Djami'ah al-Misriyah fi al-Ma'adi, 1930-1935" al-Qahirah (1936) ["Egyptian University Excavations at Ma'adi, 1930-1935" in Arabic], 17 pp.  
 — and MENGHIN, O. (1932 a, 1932 e, and 1936). See MENGHIN, O. and AMER, M. (1932 a, 1932 e, and 1936).  
 ANTONIUS, O. (1922), "Grundzüge einer Stammengeschichte der Haustiere", Jena, (G. Fischer), 1922.  
 ARCELIN, A. (1870), "L'industrie primitive en Égypte et en Syrie", Mission scientifique du Ministère de l'Instruction publique, 1868-69, Rapport au ministre, Mâcon 1870.  
 ARKELL, W. J. and SANDFORD, K. S. (1929 and 1933); see SANDFORD, K. S. and ARKELL, W. J. (1929 and 1933).  
 BAUMGÄRTEL, E. (1926), "Dolmen und Mastaba" (Behefte zum *Alten Orient*, 6), Leipzig 1926.

- BAUMGÄRTEL, E. (1928), "Neolithische Steingeräte in Form von Typen des älteren Paläolithikums", *P. Z.*, Bd. XIX, Heft 3/4, 1928, S. 101-9 (Illust.).  
 — (1929), "Tunis: Neolithikum", *Reall. d. Vorg.*, Bd. XIII, 1929, S. 456-82 (illust.).  
 BERNARD, A. (1921), "Le Maroc", Bibliothèque d'histoire contemporaine, 6<sup>e</sup> édition, Paris 1921.  
 — (1929), "L'Algérie", Paris (Bibliothèque d'histoire contemporaine, Félix Alcan), 1929.  
 BLANKENHORN, M. (1921 a, b and c, each of the three Hefte respectively). "Die Steinzeit Palästina-Syriens und Nordafrikas", Das Land der Bible; Gemeinverstandl. Heft zur Palästinakunde, Bd. 3, Hefte 5 u. 6 und Bd. 4. Heft 1 Leipzig 1921.  
 BOURCART, J. (1933), "Notice sur un essai de carte géologique du Quaternaire de la zone atlantique du Maroc", *C. R. Cong. Intern. Géog.*, Paris 1931, t. II, fasc. 2, Paris 1933, pp. 818-26.  
 BOVIER-LAPIERRE, P. (1925), "Le paléolithique stratifié des environs du Caire", *L'Anthr.*, t. XXXV, 1925, pp. 37-46.  
 — (1926), "Une nouvelle station néolithique (El-Omari) au Nord d'Hérouan (Égypte)", *C. R. Cong. Intern. Géog.*, Le Caire 1925, t. IV, Le Caire 1926, pp. 268-282.  
 — (1926 a), "Stations préhistoriques des environs du Caire", *C. R. Cong. Intern. Géog.*, Le Caire 1925, t. IV, Le Caire 1926, pp. 298-308.  
 — (1931), "L'Égypte préhistorique", Extrait du *Précis de l'histoire d'Égypte*, t. I, Le Caire 1931, 50 pp.  
 BREUIL, H. (1928), See KAMAL-EL-DINE et BREUIL, H. (1928).  
 — (1931), See FROBENIUS, L. et BREUIL, H. (1931).  
 — (1932 d), "Peintures rupestres préhistoriques du Harar (Abyssinie)", *L'Anthr.*, t. XLIV, Nos. 5-6, 1934, pp. 473-83.  
 BRUNTON, G. (1928), See BRUNTON, G. and CATON-THOMPSON, G. (1928).  
 — (1929), "The Beginnings of Egyptian Civilisation", *Antiq.*, vol. III, No. 12, Dec. 1929, pp. 456-67 (illust.).  
 — (1932), "The Predynastic Town-site at Hierakonpolis" in *Studies presented to F. Ll. Griffith*, Oxford 1932, pp. 272-76.  
 — (1937), "Mostagedda and the Tasian Culture" (with a chapter by G. M. Morant), London, Bernard Quaritch, 1937.  
 — and CATON-THOMPSON, G. (1928), "The Badarian Civilisation and Predynastic Remains near Badari", London 1928.  
 Part I: "The Badarian Civilisation, Part I", by Brunton, G. Part II: "The Predynastic Settlement: North Spur Hemamieh" by Caton-Thompson, G.  
 CAPORIACCO, L. di e GRAZIOSI, P. (1934), "Le pitture rupestri di Ain Doua (El Auenat)", Centro di Studi coloniali, Firenze 1934.



- CATON-THOMPSON, G. (1925), "Preliminary Report on Neolithic Pottery and Bone Implements from the Northern Fayum Desert, Egypt", *Man*, vol. 25, Oct. 1925, No. 96, pp. 153-56.
- (1926 a), See CATON-THOMPSON, G. and GARDNER, E. W. (1926 a).
- (1927), "Explorations in the Northern Fayum", *Antiq.*, Vol. I, 1927, pp. 326-340.
- (1928), See BRUNTON, G. and CATON-THOMPSON, G. (1928).
- (1928 a), Recent Excavations in the Fayum, *Man*, Vol. 28, July 1928, No. 80, pp. 109-113.
- (1928 b), "Neolithic Fayum Pottery", *An. Eg.*, 1928, Sept., Part III, pp. 70-89.
- (1929 a), "Egypt: Archaeology", a Letter to the Editor, *Man*, Vol. 29, July 1929, No. 97, p. 132.
- (1931 a), "The Royal Anthropological Institute's Prehistoric Research Expedition to the Kharga Oasis, Egypt. Preliminary Outline of the Season's Work", Reprint from *Man*, 1931, No. 91, pp. 77-84.
- (1931 b), "Kharga Oasis", *Antiq.*, Vol. V, 1931, pp. 221-26.
- (1932), "The Royal Anthropological Institute's Prehistoric Research Expedition to Kharga Oasis, Egypt. The Second Season's Discoveries", Reprint from *Man*, 1932, No. 158, pp. 129-153.
- (1934 a), "The Camel in Dynastic Egypt", *Man*, XXXIV, 1934, No. 24, p. 21.
- (1934 b), See CATON-THOMPSON, G. and GARDNER, E. W. (1934 b).
- (1938), "Geology and Archaeology of Hadhramout, South-west Arabia: Preliminary Notes on the Lord Wakefield Expedition", *Nature*, Vol. 142, July 23, 1938, pp. 139-141.
- and GARDNER, E. W. (1926), "Research in the Fayum", *An. Eg.*, 1926, Part I, pp. 1-4.
- and GARDNER, E. W. (1926 a), "The Recent Geology and Neolithic Industry of the Northern Fayum Desert", *J. R. A. I.*, Vol. LVI, 1926, pp. 301-323. Part I: "The Recent Geology of the Northern Fayum Desert" by Gardner, E. W., pp. 301-08. Part II: "The Neolithic Industry of the Northern Fayum Desert" by Caton-Thompson, G., pp. 309-23.
- and GARDNER, E. W. (1929), "Recent Work on the Problem of Lake Moëris", *G. J.*, Vol. LXXIII, No. 1, Jan. 1929, pp. 20-60.
- and GARDNER, E. W. (1932 a), "The Prehistoric Geography of Kharga Oasis", *G. J.*, Vol. LXXX, No. 5, Nov. 1932, pp. 369-409.
- and GARDNER, E. W. (1934 b), "The Desert Fayum" (2 vols.; one text and one plates), pub. by *Roy. Anthr. Inst.*, London (1934), (only Ch. I on "Geological Introduction" being by Gardner, E. W.).

- CHILDE, V. G. (1929), "The Most Ancient East: the Oriental Prelude to European Prehistory", London (Kegan Paul), 1929.
- (1934), "New Light on the Most Ancient East; the Oriental Prelude to European Prehistory", London 1934.
- COTTEVILLE-GIRAUDET, R. (1933), "L'Égypte avant l'histoire. Paléolithique, néolithique, âges du cuivre. Introduction à l'étude de l'Égypte pharaonique", *B. I. fr. A. or.*, t. XXXIII, 1933, pp. 1-168.
- CROWFOOT, J. (1935), "Jericho: City and Necropolis (Fifth Report): IX Notes on the Flint Implements", *Ann. Arch. and Anthropol.*, Vol. XXI, 1935, Nos. 3-4, pp. 174-184.
- (1937), "Notes on the Flint Implements of Jericho, 1936", *Ann. Arch. and Anthropol.*, Vol. XXIV, 1937, Nos. 1-2, pp. 35-50 and plates VI-X.
- CURRELLY, C. T. (1913), "Catalogue général des Antiquités égyptiennes du Musée du Caire, Nos. 63001-64906. — Stone Implements", Le Caire 1913.
- GURWIN, E. C. (1935), "Agriculture and the Flint Sickle in Palestine", *Antiq.*, Vol. IX, No. 33, March 1935, pp. 62-66.
- DUNBAR, J. H. (1934), "Some Nubian Rock Pictures" (with map and plates), *Sud. Not. Rec.*, Vol. XVII, 1934, Part II, pp. 139-167 (illust.).
- FIRTH, C. M. (1912), (1915) and (1927), "The Archaeological Survey of Nubia". Reports for 1908-09 (Cairo 1912), 1909-10, (1915) and 1910-11, (1927).
- FLAMAND, G. (1921), "Les pierres écrites (Hadjrât Mektoubat). Gravures et inscriptions rupestres du Nord-Africain", Paris 1921.
- FLEURE, H. J. (1927, 1927 a and b), See PEAKE, H. and FLEURE, H. J. (1927, 1927 a and b).
- FRANKFORT, H. (1924 and 1927), "Studies in Early Pottery of the Near East", *Roy. Anthr. Inst.*, Occasional Papers 6 and 8, London 1924 and 1927.
- I. "Mesopotamia, Syria and Egypt and their Earliest Interrelations".
- II. "Asia, Europe and the Aegean, and their Earliest Interrelations".
- (1932), "Archæology and the Sumerian Problem", *Oriental Inst. of Chicago*, Studies in Ancient Oriental Civilisations, No. 4, Chicago 1932.
- (1932 a), "Modern Survivors from Punt", in "Studies presented to F. Ll. Griffith", Oxford 1932, pp. 445-53.
- (1934), "The Iraq Excavations of the Oriental Institute, 1932-33: Third Preliminary Report of the Iraq Expedition", *Or. Inst. Communications*, No. 17, 1934.
- FROBENIUS, L. (1933), "Kulturgeschichte Afrikas: Prolegomena zu einer historischen Gestaltlehre", Zurich 1933.
- (1934), "Prehistoric Art in the Libyan Desert", item in News and Views, in *Nature*, No. 3349, Vol. 133, Sat. Jan. 6, 1934, p. 20.
- und OBERMAIER, H. (1923-25), "Hadschra Maktuba, urzeitliche Felsbilder Klein Afrikas", Veröffentlichung des Forschungsinstituts für Kulturmorphologie, München 1923-25.



- FROBENIUS, L. et BREUIL, H. (1931), "Afrique", *Cahiers d'Art*, Paris 1931. "L'art africain" par FROBENIUS, L., pp. 3-55. "L'Afrique préhistorique", par BREUIL, H., pp. 61-122. The part by Breuil originally published in summarized form in *Cahiers d'Art*, Nos. 8-9, 1930, pp. 474-480 and 489-500.
- GABRA, S. (1930), "Fouilles du Service des Antiquités à Deir Tassa", *A. S. A. Ég.*, t. XXX, Le Caire 1930, pp. 147-158 (illust.).
- GARDNER, E. W. (1926 and 1926 a), See CATON-THOMPSON, G. and GARDNER, E. W. (1926 and 1926 a).
- (1927), "The Recent Geology of the Northern Fayum Desert", *Geol. Mag.*, Vol. LXIV, No. 759, Sept. 1927, pp. 386-410.
- (1929 a), "The origin of the Faiyum Depression", *G. J.*, Vol. LXXIV, No. 4, Oct. 1929, pp. 371-83.
- (1932 b), "Lacustrine Mollusca from the Faiyum Depression : A Study in Adaptation", *Mémoires de l'Institut d'Égypte*, t. XVIII, 1932.
- GARROD, D. A. E. (1929), "Excavations in the Mugharet el-Wad, near Athlit", *Q. S., P. E. F.*, for 1929, pp. 220-22.
- (1932 b), "A New Neolithic Industry : the Natufian of Palestine", *J. R. A. I.*, Vol. LXII, 1932, pp. 257-69 (with Plates XXII-XXV).
- (1934 b), "The Stone Age of Palestine", *Antiq.*, Vol. VIII, No. 30, June 1934, pp. 133-150.
- GARSTANG, J. (1936), "Jericho : City and Necropolis; Report of Sixth Concluding Season 1936 : I. General Survey and Special Features", *Ann. Arch. and Anthropol.*, Vol. XXIII (1936), Nos. 3-4, pp. 67-76.
- GOBERT, E. G. (1932 a), "See VAUFREY, R. et GOBERT, E. G. (1932 a).
- GRAZIOSI, P. e CAPORIACCO, L. DI (1934), See CAPORIACCO, L. DI e GRAZIOSI, P. (1934).
- GRIFFITH, F. LI. (1932), "Studies presented to F. LI. Griffith", by various authors, Egypt Exploration Society, Oxford Press, 1932.
- GSELL, S. (1921), "Histoire ancienne de l'Afrique du Nord", t. I "Les conditions du développement historique; les temps primitifs; la colonisation phénicienne et l'Empire de Carthage", 3<sup>e</sup> éd., Paris 1921.
- HERTZ, A. (1934), "Die Entwicklung der ältesten Kulturen in Aegypten und ihre Beziehungen zu Vorderasien", *Odbitka, Rocznik Orientalistyczny*, t. IX, 1934, str. 163-164 (Sonderabdruck, 29 S.).
- HILZHEIMER, M. (1926), "Natürliche Rassengeschichte der Haussaugetiere", Berlin und Leipzig 1926.
- (1928), "Nordafrikanische Schafe und ihre Bedeutung für die Besiedlungsfrage Nordafrikas", *Zeitschrift für Säugetierkunde*, Bd. III, 1928, S. 253-77.
- (1932), "Dogs", *Antiq.*, Vol. VI, 1932, pp. 411-419.
- HUG, G. (1927), "Le Mæris. Étude de géographie physique historique", *B. S. R. Géogr. Ég.*, t. XV, mai 1927, pp. 1-50.

- HUZAYYIN, S. A. (1936), "Glacial and Pluvial-Episodes of the Diluvium of the Old World : a Review and Tentative Correlation", *Man*, Feb. 1936, No. 20, pp. 19-22 and correction in May 1936, No. 115, p. 88.
- (1937), "The Flint Industry (of the pre-Dynastic Settlement of Amant)"; being Ch. xiv of "Cemeteries of Amant I", by Sir Robert Mond and Myers, O. H., with chapters by others; See Mond, Sir Robert..., etc., Egypt Exploration Soc., London 1937, pp. 191-253 and Pl. LVII-LXIX.
- (1937 a), "Egyptian University Scientific Expedition to S. W. Arabia", *Nature*, No. 3542, Vol. 140, Sept. 18, 1937, pp. 513-14.
- JACKSON, A. (1933), "Egyptian Neolithic Barley" *Nature*, No. 3314, Vol. 131, Sat. May 6, 1933, p. 652.
- JUNKER, H. (1919) und (1920), "Bericht über die Grabungen auf den Friedhofen von El-Kubanieh Süd", *Denkschr. Ak. Wiss. Wien, Phil.-hist. Kl.*, Bd. LXII, 3, 1919; und "Bericht über die Grabungen auf den Friedhofen von El-Kubanieh Nord", *Ibidem*, Bd. LXIII, 3, Wien 1920.
- (1928), "Bericht über die von der Akademie der Wissenschaften in Wien nach dem Westdelta entsendete Expedition (20 Dez. 1927 bis 25 Feb. 1928)", *Denkschr. Ak. Wiss. Wien, Phil.-hist. Kl.*, Bd. 68, Abh. 3, Wien 1928.
- (1928 a), "Die Entwicklung der vorgeschichtlichen Kultur in Ägypten", Festschrift f. Wilhelm Schmidt, Wien (Moedling), 1928, S. 865 sqq.
- (1929), "Vorläufiger Bericht über die Grabung der Akademie der Wissenschaften in Wien auf der neolithischen Siedlung von Merimde-Benisalâme (Westdelta), vom 1 bis 30 März 1929", *Anz. phil.-hist. Kl. Ak. Wiss.*, Wien, Jahrg. 1929, Nr. XVI-XVIII, S. 156-248 (illust.).
- (1930), "Bericht über die vom Deutschen Institut für ägyptische Altertumskunde nach dem Ostdelta-Rand unternommene Erdkundungsfahrt" (Im Verein mit Eilmann, R., Schott, S. und Stier, H. E. erstattet von Junker H.), *Mitt. D. I. A. A. Kairo*, Bd. I, H. I, Wien 1930, S. 3-27 (illust.).
- (1930 a), "Vorläufiger Bericht über die zweite Grabung der Akademie der Wissenschaften in Wien auf der vorgeschichtlichen Siedlung Merimde-Benisalâme, vom 7 Febr. bis 8 Apr. 1930", *Anz. phil.-hist. Kl. Ak. Wiss.*, Wien, Jahr. 1930, Nr. V-XIII, S. 21-82 (illust.) (with "Preliminary Note on Human Remains from a Neolithic Settlement at Merimde-Benisalâme", by Derry, D. E., pp. 53-60).
- (1932), "Vorbericht über die dritte, von der Akademie der Wissenschaften in Wien in Verbindung mit dem Egyptiska Museet in Stockholm unternommene Grabung auf der neolithischen Siedlung von Merimde-Benisalâme", Sonderabdruck aus dem *Anz. phil.-hist. Kl. Ak. Wiss.*, Wien, Jahrg. 1932, Nr. I-IV, S. 36-82 (illust.).
- (1933), "Vorläufiger Bericht über die von der Akademie der Wissenschaften in Wien in Verbindung mit dem Egyptiska Museet in Stockholm unternommene Grabung auf der neolithischen Siedlung von Merimde-Benisalâme, vom 2 Jan.



- bis 20 Feb. 1933", *Anz. phil.-hist. Kl. Ak. Wiss.*, Wien, Jahrg. 1933, Nr. XVI-XXVII, S. 54-82 (illust.).
- JUNKER, H. (1933 a), See JUNKER, H. und DELAPORTE, L. (1933 a).
- und DELAPORTE, L. (1933 a), "Die Völker des Antiken Orients" (Bd. 3 aus "Geschichte der Führenden Völker", herausgegeben von Finke, H., Junker, H. und Schnurer, J.) Freiburg im Breisgau, 1933. "Die Ägypter", von Junker, H. "Die Babylonier, Assyrier, Perser und Phöniker", von Delaporte, L.
- KAMAL-EL-DINE, PRINCE, et BREUIL, H. (1928), "Les gravures rupestres du Djebel Ouenat découvertes par le Prince Kamal-el-Dine", Extrait de la *Rev. Scientifique* du 25 fév. 1928, 15 (13) pp.
- "Description des gravures", par BREUIL, H., pp. 4-15.
- KÜHN, H. (1927), "Alter und Bedeutung der Nordafrikanischen Felszeichnungen", *Ipek* 1927, S. 13-30.
- (1928), "Die Nordafrikanischen und ägyptischen Felsbilder der Eiszeit", Sonderabdruck aus : *Tagungsberichte der deutschen anthropologischen Gesellschaft*. (im Auftrage der Kölner anthropologischen Gesellschaft), Leipzig 1928, S. 68-79.
- LAFORGUE, L. (1925), "Considérations sur la fin du Néolithique au Sahara", *Bull. Soc. Géog. Arch.*, Oran, t. XLV, fasc. 170, 1925.
- (1926), "Les gravures et peintures rupestres en Mauritanie", *Bull. Soc. Géog. Arch.*, Oran, t. XLVI, fasc. CLXXIV, 1926, pp. 205-210.
- LEAKEY, L. S. B. (1931), "The Stone Age Cultures of Kenya Colony" with Appendices by Solomon, J. S., Brooks, C. E. P., Hopwood, A. T., Beck, H. C., and Connolly, M., Cambridge 1931.
- LECLERCQ, E. (1933), "Dans le Delta, avant la I<sup>re</sup> dynastie" *Chronique d'Égypte*, VIII, 1933, p. 217 ss.
- MALLON, A. (1925), "Quelques stations préhistoriques de Palestine", *Mélanges de l'Université Saint-Joseph*, Beyrouth, t. X, fasc. 6, 1925, p. 183-214 et pl. VI-XIII.
- (1930), "Les fouilles de l'Institut Biblique Pontifical dans la vallée du Jourdain", *Bibl.*, t. 11, 1930, pp. 3-22, et 129-148 (illust.).
- (1933), "Les dernières phases de l'âge de la pierre et les premiers temps historiques en Palestine", *Bibl.*, t. 14, 1933, pp. 199-211.
- MATHIASSEN, T. (1934), "Primitive Flintredskaber fra Samso", *Aarbroger for Nordisk Oldkyndighed og Historie*, etc., 1934, pp. 39-54 and Pl. II-IV (avec résumé en français : "Outils de silex primitifs de l'île de Samso").
- MENGHIN, O. (1931), "Weltgeschichte der Steinzeit", Schroll in Wien 1931.
- (1932), "The Stone Age of North Africa with special reference to Egypt", *B. S. R. Géog. Ég.*, t. XVIII, Le Caire 1932, pp. 9-27.
- (1932 b), "Die Primitivtypen des Neolithikums von Merimde-Benisalâme", *Anz. phil.-hist. Kl. Ak. Wiss.*, Wien, Jahrg. 1932, Nr. I-IV, S. 83-88 (illust.).

- MENGHIN, O. (1932 c), "Paläolithische Funde in der Umgebung von Benisalâme", *Anz. phil.-hist. Kl. Ak. Wiss.*, Wien, Jahrg. 1932, Nr. I-IV, S. 89-97 (illust.).
- (1932 d), "Die Grabung der Universität Kairo bei Maadi", *Mitt. D. I. A. A. Kairo*, Bd. II, Heft 2, Wien 1932, S. 134-47 (illust.).
- (1932 f), "Die Grabung der Universität Kairo bei Maadi (Zweites Grabungsjahr)", *Mitt. D. I. A. A. Kairo*, Bd. III, Heft 2, Wien 1932, S. 150-54 (illust.).
- (1932 g), "Excavations at Ma'adi", *An. Eg.*, 1932, Part IV, Dec., pp. 108-09.
- (1933), "Merimde-Benisalâme und Ma'adi", *Anz. phil.-hist. Kl. Ak. Wiss.*, Wien, Jahrg. 1933, Nr. XVI-XXVII, S. 82-97.
- (1934), "Die Grabung der Universität Kairo bei Ma'adi (Drittes Grabungsjahr)", *Mitt. D. I. A. A. Kairo*, Bd. V, H. 2, S. 111-118 (illust.).
- and AMER, M. (1932 a), "The Excavations of the Egyptian University in the Neolithic site at Maadi, First Preliminary Report (Season 1930-31)", Egyptian University, Faculty of Art, Pub. No. 19, Cairo 1932 (illust.).
- and AMER, M. (1932 e), "Stone Age Finds from the Kharga Oasis", *Mitt. D. I. A. A. Kairo*, Bd. III, H. 2, Wien 1932, S. 46-9 (illust.).
- and AMER, M. (1936), "The Excavations of the Egyptian University in the Prehistoric Site at Maadi : Second Preliminary Report", Egyptian University, Faculty of Arts Publications, Cairo 1936.
- MOND, Sir ROBERT and MYERS, O. H. (with chapters by others) (1937), "Cemeteries of Armant I" (two volumes, one text and one plates), Egypt Exploration Soc., London 1937.
- MONOD, Th. (1931), "Découverte d'un homme fossile; Quelques observations sur les habitants actuels et la préhistoire", par MONOD, Th. (avec une note par BOULE, M., pp. 255-57), constituting Ch. v of "D'Algérie au Sénégal", par le Capitaine AUGIÉRAS, MONOD, Th., etc. (Paris 1931), pp. 253-84.
- (1932), "L'Adrar Ahnet : Contribution à l'étude archéologique d'un district saharien", *Travaux et Mémoires de l'Institut d'Ethnologie*, XIX, Paris 1932.
- MOOK, F. (1880), "Ägyptens Vormetallische Zeit", Würzburg 1880 (mit einem "Nachtrag : Über die von Dr. Mook in Aegypten gesammelten Fossilien" von Rütimayer, L., S. 31-36).
- MORANT, G. M. (1925), "A study of Egyptian Craniology from Prehistoric to Roman Times", *Biom.*, Vol. XVII, 1925, pp. 1-52.
- MORET, A. (1925), "Histoire de l'Orient (Histoire ancienne)", fasc. I, 1925.
- (1927), "The Nile and Egyptian Civilization", London (Kegan Paul) 1927.
- MORGAN, J. DE (1896) et (1897), "Recherches sur les origines de l'Égypte", 2 tomes, Paris 1896-97; t. I : "L'âge de la pierre et les métaux" 1896, t. II : "Ethnographie préhistorique et Tombeau de Nagada" (avec la collaboration de Wiedemann, Jéquier G. et Fouquet) 1897.
- (1896 a), "Mission scientifique en Perse", t. IV. "Recherches archéologiques" (première partie) 1896.



- MORGAN, J. DE (1899), "Mission scientifique au Caucase", t. II. "Recherches sur les origines des peuples du Caucase", 1899.
- (1922), "Les premiers temps de l'Égypte", t. XXV, Mon. et Mém. Académie des Inscriptions, 1922.
- (1923), "L'Égypte et l'Asie aux temps antéhistoriques", *Journal asiatique*, 1923, p. 117.
- (1923 a), "L'industrie néolithique et le Proche Orient", *Syr.*, 1923 (vol. 4), pp. 23-37.
- (1924), "L'humanité préhistorique : Esquisse de préhistoire générale", Paris 1924.
- (1925, 1926 et 1927), "La préhistoire orientale", Paris, 3 tomes, 1925-27; t. I : "Généralités", 1925; t. II : "L'Égypte et l'Afrique du Nord", 1926; t. III : "L'Asie antérieure", 1927.
- MURRAY, M. A. (1932), "An Early Sed-Festival", *An. Eg.*, 1932, pp. 70-72.
- MYERS, O. H. (1933), "Two Prehistoric Objects", *J. E. A.*, vol. XIX, Parts I and II, May 1933.
- and MOND, Sir ROBERT (1937), see MOND, Sir ROBERT and MYERS, O. H. (1937).
- NAVILLE, E. (1913), "L'origine africaine de la civilisation égyptienne", *Rev. arch.*, t. II, 1913, pp. 47-65.
- (1916/17), "Les dessins des vases préhistoriques égyptiens", *Archives suisses d'Anthropologie générale*, t. II, Nos. 1-2 (1916-17), pp. 77-82 (illust.).
- NEUVILLE, R. (1929), "Additions à la liste des stations préhistoriques de Palestine et Transjordanie", *J. P. O. S.*, Vol. IX, 1929, pp. 114-121.
- (1930 and 1931 a), "Notes de préhistoire palestinienne", *J. P. O. S.*, Vol. X, 1930, pp. 64-75 and 193-221, and Vol. XI, 1931, pp. 152-156.
- (1931), "L'Acheuléen supérieur de la grotte d'Oumm-Qatafa (Palestine)", *L'Anthr.*, t. 41, 1931, pp. 13-51 and 249-63, with a section on "Paléontologie" by Vaufray, R., pp. 253-63.
- (1931 b), "Quartier d'Orange de Palestine", *Extrait du B. S. P. fr.*, 1931, No. 5, 4 (2) pp. (illust.).
- (1931 c), "L'industrie lithique de Teleilat Ghassoul", *Bull. Soc. Anthr.*, Paris 1931, *Extrait* 12 pp. et 9 pl.
- (1933), "Les recherches préhistoriques en Syrie-Palestine", *Extrait XV, Cong. Intern. d'Anthropologie et d'Archéol. préhistorique* (5<sup>e</sup> session, Paris 1931), Paris 1933, 11 pp.
- (1933 a), "Notes de préhistoire syro-palestinienne", *J. P. O. S.*, Vol. XIII, 1933, pp. 128-136.
- (1934), "Les débuts de l'agriculture et la faucille préhistorique en Palestine", *Extrait du Recueil de la Société hébraïque d'Exploration et d'Archéologie palestiniennes*, Jérusalem 1934.

- NEWBERRY, P. E. (1923), "Egypt as a field for Anthropological Research", *Rep. B. A. A. S.*, Liverpool Meeting 1923 (London 1924), pp. 175-196.
- (1927), "Ägypten als feld für anthropologische Forschung", Leipzig 1927.
- (1928), "The Pig and the Cult-Animal of Set", *J. E. A.*, Vol. XIV, Parts III and IV, 1928, pp. 211-225.
- NEWBOLD, D. (1924), "A Desert Odyssey of a Thousand Miles", *Sud. Not. Rec.*, Vol. VII, No. 1, 1924, pp. 43-101.
- and SHAW, W. B. K. (1928), "An Exploration in the South Libyan Desert", *Sud. Not. Rec.*, Vol. XI, 1928, pp. 103-194 (with parts also by Ball, J., Grabham, G. W. and Bedford, H. W.).
- NILSSON, E. (1938), "Pluvial Lakes in E. Africa", *Geologiska Föreningens i Stockholm Förhandlingar*, Bd. 60, H. 3, 1938, S. 423-33.
- OBERMAIER, H. (1924 a), "Aegypten", in *Reall. d. Vorg.*, Bd. I, Berlin 1924, S. 48-50.
- (1931), "L'âge de l'art rupestre Nord-Africain", *L'Anthr.*, t. XLI, 1931, pp. 65 et ss.
- OBERMAIER, H. und FROBENIUS, L. (1923-25); see FROBENIUS, L. und OBERMAIER, H. (1923-1925).
- PEAKE, H. J. E. (1928), "The Origins of Agriculture", London (Benn), 1928.
- (1931), "The beginnings of Agriculture", being section V of "Early Man; his Origin, Development and Culture" (by various authors) [Lectures delivered at the *Roy. Anthr. Inst.*], London (Benn), 1931, pp. 94-125.
- and FLEURE, H. J. (1927), "Hunters and Artists", being Vol. II of "The Corridors of Time", Oxford Press 1927.
- and FLEURE, H. G. (1927 a), "Peasants and Potters", Vol. III of "The Corridors of Time", Oxford 1927.
- and FLEURE, H. G. (1927 b), "Priests and Kings", Vol. IV of "The Corridors of Time", Oxford 1927.
- PERRY, W. J. (1924), "The Growth of Civilization", London 1924.
- PETRIE, W. M. Flinders, (1915), "The Stone Age in Egypt", *An. Eg.*, 1915, pp. 59-77 and 122-135.
- (1917), "Tools and Weapons", London 1917.
- (1920), "Prehistoric Egypt", *B. S. A. Eg.*, Pub. No. 31, London 1920.
- (1921), "Corpus of Prehistoric Pottery and Palettes", *B. S. A. Eg.*, Pub. No. 32, London 1921.
- and QUIBELL, Ed. (1896), "Nagada and Ballas 1895", (with chapter on the Flint Implements of Nagada by Spurrell, F. C. J.), London 1896.
- PICARD, L. (1933), "Zur postmiocänen Entwicklungsgeschichte der Kontinentalbecken Nord-Palästinas", *Sonder-Abdruck aus dem Neuen Jahrbuch für Mineralogie*, etc., Beil.-Bd. 70. Abt. B. 1933, S. 93-115.
- PUMPELY, R. and others (1908), "Explorations in Turkestan; Expedition of 1904;



- Prehistoric Civilizations of Anau. Origins, Growth and Influence of Environment". Edited by Pumpelly, R., Director of the Expedition, Washington (Pub. by the Carnegie Institution of Washington), 1908, 2 vols.
- REISNER, G. A. (1910), "The Archæological Survey of Nubia; Report for (1907-08: I Archæological Report", Cairo 1910).
- ROMER, A. S. (1928), "Pleistocene Mammals of Algeria: Fauna of the Paleolithic Station of Mechta-El-Arbi" in "A contribution to the study of prehistoric man in Algeria, N. Africa", in *Beloit College Bulletin*, Vol. XXIX, No. 5, pp. 79-163. (Date of pub. not indicated, but probably 1928?)
- ROSEN, E. von (1929), "Did Prehistoric Egyptian Culture spring from a Marsh-Dwelling People?", *Riksmuseets Etnografiska Avdelning, Smarre Meddelanden*, Nr. 8, Stockholm 1929.
- SANDFORD, K. S. (1934), "Paleolithic Man and the Nile Valley in Up. and Mid. Egypt", *Or. Inst.*, Pub. XVIII, Chicago 1934.
- and ARKELL, W. J. (1929), "Paleolithic Man and the Nile-Faiyum Divide: a Study of the Region during Pliocene and Pleistocene Times", *Prehistoric Survey of Egypt and Western Asia*, Vol. I, *Or. Inst.*, Pub. vol. X, Chicago 1929.
- and ARKELL, W. J. (1933), "Paleolithic Man and the Nile Valley in Nubia and Upper Egypt: A Study of the Region during Pliocene and Pleistocene Times", *Prehistoric Survey of Egypt and Western Asia*, Vol. II, *Or. Inst.*, Pub. vol. XVII, Chicago 1933.
- SARASIN, P. (1910), "Die ägyptische Præhistorie und das Dreiperiodensystem", *Verhandlungen der Naturforschenden Gesellschaft in Basel*, 1910, S. 245.
- SCHARFF, A. (1926), "Vorgeschichtliches zur Liberfrage", *Z. Äg. Spr.*, Bd. LXI, 1926, S. 16, sqq.
- (1927), "Grundzüge der ägyptischen Vorgeschichte" (*Morgenland Heft 12*), Leipzig 1927.
- SCHWEINFURTH, G. (1912), "Ueber alte Tierbilder und Felsinschriften bei Assuan", *Z. f. Ethn.* 44, 1912, S. 627-58, (mit 25 Abb.).
- SELIGMAN, C. G. (1910), "A Neolithic site in the Anglo-Egyptian Sudan", *J. R. A. I.*, Vol. XL, 1910.
- (1926), "Pygmy implements from North-East Africa", *Man*, XXVI, 1926, p. 132.
- (1932), "Egyptian Influence in Negro Africa" in "Studies presented F. Ll. Griffith", Oxford 1932, pp. 457-62.
- (1934), "Egypt and Negro Africa; a Study in Divine Kingship", London (Routledge), 1934; (see also *Nature*, No. 3345, Vol. 132, Sat. Dec. 9, 1933, pp. 903-04).
- SETON-KARR, H. W. (1904), "Flint Implements of the Fayum, Egypt", Report of U. S. National Museum, 1904, pp. 747-51 and plates 1-12.
- SHAW, W. B. K. and NEWBOLD, D. (1928), See NEWBOLD D. and SHAW, W. B. K. (1928).

- STOESSIGER, B. N. (1927), "A study of the Badarian Crania recently excavated by the Brit. School of Arch. in Egypt", *Biom.*, Vol. XIX, 1927, pp. 110-150.
- TURVILLE-PETRE, F. (1932), "Excavations in the Mugharet el-Kebarah", *J. R. A. I.*, Vol. LXII, 1933, pp. 272-76.
- VAUFREY, R. (1933), "Notes sur le Capsien", *L'Anthr.*, 1933, pp. 457-83.
- (1936), "L'Âge des spirales de l'art rupestre nord-africain", *B. S. P. fr.*, t. 33, No. 11, 1936, pp. 624-38.
- et GOBERT, E. G. (1932 a), "Deux gisements extrêmes d'ibéro-maurusien", *L'Anthr.*, t. XLII, 1932, pp. 449-490.
- VIGNARD, Ed. (1920), "Une station aurignacienne à Nag-Hamadi (Haute-Égypte): Station du Champ de Bagasse", *B. I. Ég.*, t. XVIII, fasc. 1, 1920, pp. 1-20.
- (1923), "Une nouvelle industrie lithique: le Sébilien", *B. I. fr. A. or.*, t. XXII, premier fasc., 1923, pp. 1-76.
- (1928), "Une nouvelle industrie lithique: le Sébilien", *B. S. P. fr.*, t. XXV, No. 4, avril 1928, pp. 200-220 et XX pl.
- (1929), "Station aurignacienne du Champ de Bagasse à Nag-Hamadi (Haute-Égypte)", *B. S. P. fr.*, t. XXVI, No. 5, mai 1929, pp. 199-306.
- (1932), "Deux éléments de faucilles énéolithiques de Haute-Égypte", *B. S. P. fr.*, t. XXIX, No. 2, fév. 1932, pp. 99-102.
- (1934), "Les Microburins Tardenoisien du Sébilien. Fabrication. Emplois. Origine du Microburin". Extrait du Congrès Préhistorique de France, X<sup>e</sup> Session, 1934, pp. 66-106.
- WALTHER, J. 1912 und 1934, "Das Gesetz des Wüstenbildung in Gegenwart und Vorzeit", Zweite neubearbeitete Auflage, Leipzig 1912 (also Dritte Aufl. 1924).
- WEIGALL, A. E. P. (1927), "A Report on the Antiquities of Lower Nubia", Oxford, Un. Press, 1907.
- WOOLLEY, C. L. (1928), "The Sumerians", Oxford 1928.



A PROPOS  
DE LA PRÉSENCE DE POCHES À CAILLOUTIS

DANS  
L'ÉOCÈNE INFÉRIEUR À L'OUEST DE SOHAG

PAR  
Y. BARTHÉLÉMY.

Docteur HUME, dans sa remarquable *Geology of Egypt*, attire l'attention de ses lecteurs sur la question des galets de surface du Désert Libyque <sup>(1)</sup>.

La région Ouest de Sohag est à cet égard très intéressante à étudier. On y rencontre en effet deux sortes de galets plus ou moins siliceux :

a) Des galets de forme irrégulière, polis par l'action éolienne, patinés, de couleur brun noirâtre;

b) Des galets *roulés* également patinés, de teinte légèrement plus claire que les précédents, quelquefois corrodés.

Ce sont ces derniers qui font l'objet de cette note. Au lieu de se trouver éparpillés au hasard à la surface du plateau, ceux-ci apparaissent sous forme de tas plus ou moins proéminents. A l'examen, on s'aperçoit bientôt que la plupart de ces tas correspondent à l'affleurement d'une « poche ». C'est précisément sur ces « poches » que je serais heureux d'attirer l'attention. Beadnell en a signalé dans les grès de la région du Fayum, ici elles abondent sur la surface yprésienne (Cuvillier) <sup>(2)</sup> du plateau nummulitique calcaire à l'Ouest de Sohag.

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<sup>(1)</sup> Vol. I, p. 63-64.

<sup>(2)</sup> Correspondance du 31 décembre 1937, et carte jointe à la *Révision du nummulitique égyptien*, Le Caire, 1930.



Une première observation peut se faire sur la croupe du Cap ( $26^{\circ}29'35''$  N.- $31^{\circ}40'12''$  E.) à  $156^{\circ}$  S. W. de Sohag, dont le repérage est très facile.

Ici, on se trouve en présence d'un grand nombre de ces poches à différents stades. Partant de deux bases distantes de 70 mètres sur la crête du Cap, j'ai pu faire le relevé topographique de 31 de ces poches, en ne tenant compte que de celles visibles de cette crête. Toutes sont très nettes et ont plus de 2 mètres de diamètre <sup>(1)</sup>. L'alignement le long de l'arête comporte à lui seul 14 poches sur 250 mètres.

Si, partant de ce cap, on remonte vers le Nord en suivant la ligne de faite surplombant la vallée du Nil, on en trouve encore une grande quantité. Aux environs de la cote 275 (en un point d'où la Tour à Eau de Sohag apparaît sous un angle de  $27^{\circ}$  Est), on rencontre une petite butte en forme de champignon constituée par une couche de calcaire nummulitique dur surmontant une couche de calcaire tendre à allure crayeuse entamée par l'érosion éolienne <sup>(2)</sup>. Le pourtour de cette sorte de calotte est échancré par plusieurs de ces poches dont le noyau, encore à demi engagé, a résisté à la corrosion et apparaît ainsi en saillie <sup>(3)</sup>.

D'autres poches se retrouvent à des profondeurs variables le long des affluents du Wadi Wanina, l'une à une quarantaine de mètres au-dessous de la surface du plateau (côte 230), l'autre à près de 120 mètres au-dessous de cette même surface (côte 150). Je cite ces deux cas particuliers parce que j'aurai l'occasion d'en reparler tout à l'heure.

Les quelques chiffres que je viens de donner sur l'altitude de ces poches ne permettent pas d'en tirer, dès maintenant, une conclusion intéressante. En effet, on en trouve à différents niveaux dans l'épaisseur du plateau, quoique en plus grand nombre à la surface.

Les poches les plus faciles à étudier sont celles qui se trouvent sur la croupe du Cap à l'extrême bord de la falaise. Elles ont une allure cylin-

<sup>(1)</sup> Cf. carte (pl. I, 1 et 2) et photographies (pl. II, 1 et 2).

<sup>(2)</sup> Je crois qu'ici cela ne peut faire aucun doute, car j'ai eu l'occasion d'être surpris en ce point par une tempête de sable et j'ai pu me rendre compte de la force vive du sable et des particules solides transportées.

<sup>(3)</sup> Photogr. 1 et 2, pl. III.

drique de profondeur indéterminée, elles sont souvent égueulées et plus ou moins vidées de leur contenu. Leurs parois apparaissent assez lisses <sup>(1)</sup> et dénuées de tout « phénomène de digestion » que l'on trouve couramment dans les poches à diluvium rouge fréquentes dans la région parisienne, par exemple. Ailleurs, leur affleurement se signale par un tas de galets plus ou moins étalé. Ces tas forment les taches noirâtres que l'on peut remarquer sur la photographie 1 de la planche II.

Trois éléments différents remplissent ces poches :

- 1° Les galets roulés dont nous avons déjà parlé;
- 2° Des roches diverses plus ou moins roulées;
- 3° Un ciment qui unit le tout.

L'étude des galets est assez délicate. Jusqu'ici, j'ai dû me borner à un examen superficiel. Il serait évidemment très intéressant de demander à une analyse géochimique la composition de la patine pour la comparer à celle des galets non roulés de la surface. Leur teneur en éléments rouges, fer et manganèse, permettrait, peut-être, d'avoir une idée de leur âge relatif. Au point de vue paléontologique, je n'ai encore rien trouvé de particulièrement intéressant si ce n'est un galet roulé, détaché par moi-même du ciment, et portant une empreinte assez nette (sans doute : ostrea?).

Avec ces galets roulés, j'ai assez souvent rencontré une roche très siliceuse littéralement pétrie d'empreintes de Nummulites. Presque partout le test a disparu laissant un vide, pourtant, dans quelques-unes, on peut remarquer des traces de filets. J'ai également pu détacher deux petits échinides : le plus grand a 2 millimètres de longueur et paraît assez difficile à identifier quoi qu'il soit assez net. Extérieurement cette roche, que j'ai observée dans des poches situées à des altitudes différant de plus de 100 mètres et à plusieurs kilomètres de distance, est patinée brun noir; elle ne présente presque pas de traces d'usure. L'intérieur passe successivement au gris puis à une teinte rougeâtre à réaction quelque peu calcaireuse. On a l'impression d'être en présence d'une silicification d'un

<sup>(1)</sup> Photogr. 1, pl. IV.



calcaire nummulitique crayeux excessivement riche en fossiles, silicification à peu près complète, progressant de l'extérieur à l'intérieur et certainement antérieure à l'incorporation dans la poche. De toute façon, cette roche ne paraît pas avoir de relation avec la roche encaissante.

Le ciment, qui agglomère ces galets et ces roches, est évidemment la caractéristique principale de ces poches; lui seul pourrait permettre de les dater et de leur attribuer une origine.

Suivant les lieux, il paraît assez différent; dans la partie supérieure des poches du Cap, il est friable et peu cohérent, il a l'allure d'une terre rougeâtre riche en sable siliceux, imprégnée de calcite cristallisée qui solidifie la masse. A la cote 275, les poches signalées ont un ciment beaucoup plus compact à tel point qu'il a pu résister à l'érosion éolienne <sup>(1)</sup>. Mais, là où j'ai trouvé une résistance remarquable du noyau, c'est dans le lit d'un wadi encaissé à plus de 100 mètres de la surface du plateau au fond d'une véritable gorge. Là, au pied d'une cascade d'une dizaine de mètres taillée dans un calcaire compact, on trouve un tas conique de 50 à 60 centimètres de diamètre et d'un mètre de hauteur environ formé par une masse de galets roulés consolidés par un ciment très résistant <sup>(2)</sup>. A l'examen du sol environnant on arrive à délimiter le contour circulaire de l'affleurement de la poche. Chose curieuse, on retrouve encore rattaché à la roche surplombante un reste de ciment contenant encore des galets. Il me paraît donc indubitable ici que le noyau ait été assez solide pour pouvoir résister non plus à la corrosion éolienne, comme à la cote 275, mais à la force d'un torrent au pied même d'une cascade. Ici le ciment est très compact, à peu près dépourvu des éléments rouges abondants plus haut, mais il est par contre très imprégné de calcite nettement cristallisée.

Il est probable que les conditions désertiques actuelles contribuent à désagréger ces ciments, ce qui explique le fait que dans les poches supérieures bien exposées aux conditions atmosphériques ils sont beaucoup plus friables et altérés que dans les poches abritées, comme c'est le cas pour cette dernière.

<sup>(1)</sup> Photogr. 1 et 2, pl. III. — <sup>(2)</sup> Photogr. 2, pl. IV.

Une analyse de ces ciments serait intéressante à plusieurs points de vue : toute trace d'organismes permettrait peut-être de dater ces dépôts certainement post-Éocène ou Éocène supérieur, à défaut une analyse des éléments rouges (fer, manganèse. . .) pourrait donner quelques indications utiles.

Quels que soient les résultats de ces divers examens, le problème se pose de la formation de ces poches.

Deux solutions se présentent à l'esprit :

- 1° Marmites;
- 2° Poches de dissolution.

En faveur de la première hypothèse on peut mettre en valeur la forme cylindrique assez régulière des poches, les parois lisses, l'absence de phénomènes de digestion des parois, la présence des galets roulés, de sable (quelquefois micacé).

Mais il faudrait admettre un cours d'eau particulièrement important et surtout une rupture de pente. Or, rien jusqu'à présent ne permet d'accepter ces données.

Ce n'est pourtant pas une hypothèse à rejeter *a priori*, si l'on tient compte de l'Ur-Nil hypothétique de Blanckenhorn; en effet, comme M. Sandford le fait remarquer « . . . le cours actuel du Nil aurait été ainsi déterminé par le lit qu'aurait occupé, au début du soulèvement continental, l'Ur-Nil. . . » (Il s'agit ici probablement d'un soulèvement Miocène <sup>(1)</sup>.)

Ces poches dateraient ainsi de l'Éocène supérieur ou de l'Oligocène. Ce qui serait à établir.

La seconde hypothèse, qui tendrait à considérer ces poches comme phénomènes de dissolution des calcaires tendres nummulitiques de cette région, est également à envisager avec peut-être moins d'audace. Elles seraient alors comparables aux poches à diluvium rouge si fréquentes dans la région parisienne. Le remplissage, galets roulés, sable, éléments terreux, proviendrait du sol meuble qui devait recouvrir les couches

<sup>(1)</sup> SANDFORD and ARKELL, *OIP*, X, Fayum, p. 9. « . . . The present course of the Nile would therefore have been determined as the bed which, at the commencement of the uplift, the Ur-Nile chanced to occupy. . . . »



rocheuses. A l'avènement des conditions désertiques, la couche de terre transformée en poussière aurait été enlevée par le vent et les éléments plus lourds seraient restés à la surface; ainsi seraient apparus, sous forme de tas plus ou moins marqués, les affleurements des poches dont le remplissage, composé en grande partie de galets de silex, aurait résisté aux agents atmosphériques.

Pourtant cette hypothèse, dans sa simplicité, n'est guère satisfaisante non plus. Comment expliquer, dans des poches de dissolution formées sous une certaine épaisseur de sol, la présence de galets roulés et cela à des profondeurs qui atteindraient plus de 100 mètres? Un autre fait délicat à expliquer est encore la quantité considérable de ces poches. Évidemment la roche encaissante est généralement tendre quoique à la cote 150 elle soit composée de calcaire dur. Sur la croupe du Cap on peut même remarquer de véritables tubes forés dans le roc. Ces tubes ont 30 à 50 centimètres de diamètre et sont comblés par le sable à une cinquantaine de centimètres de profondeur. De toute façon, la présence d'une telle quantité de galets roulés indiquerait que l'on se trouve en présence d'un littoral ou d'un lit de rivière ou du moins du voisinage de ses rives. La présence de sable et de galets inclinerait à penser que ce remplissage s'est fait sous l'eau ou dans un milieu fortement aquifère. La consolidation par la calcite se serait faite par la suite, les poches profondes bénéficiant d'une teneur plus grande en carbonate de calcium.

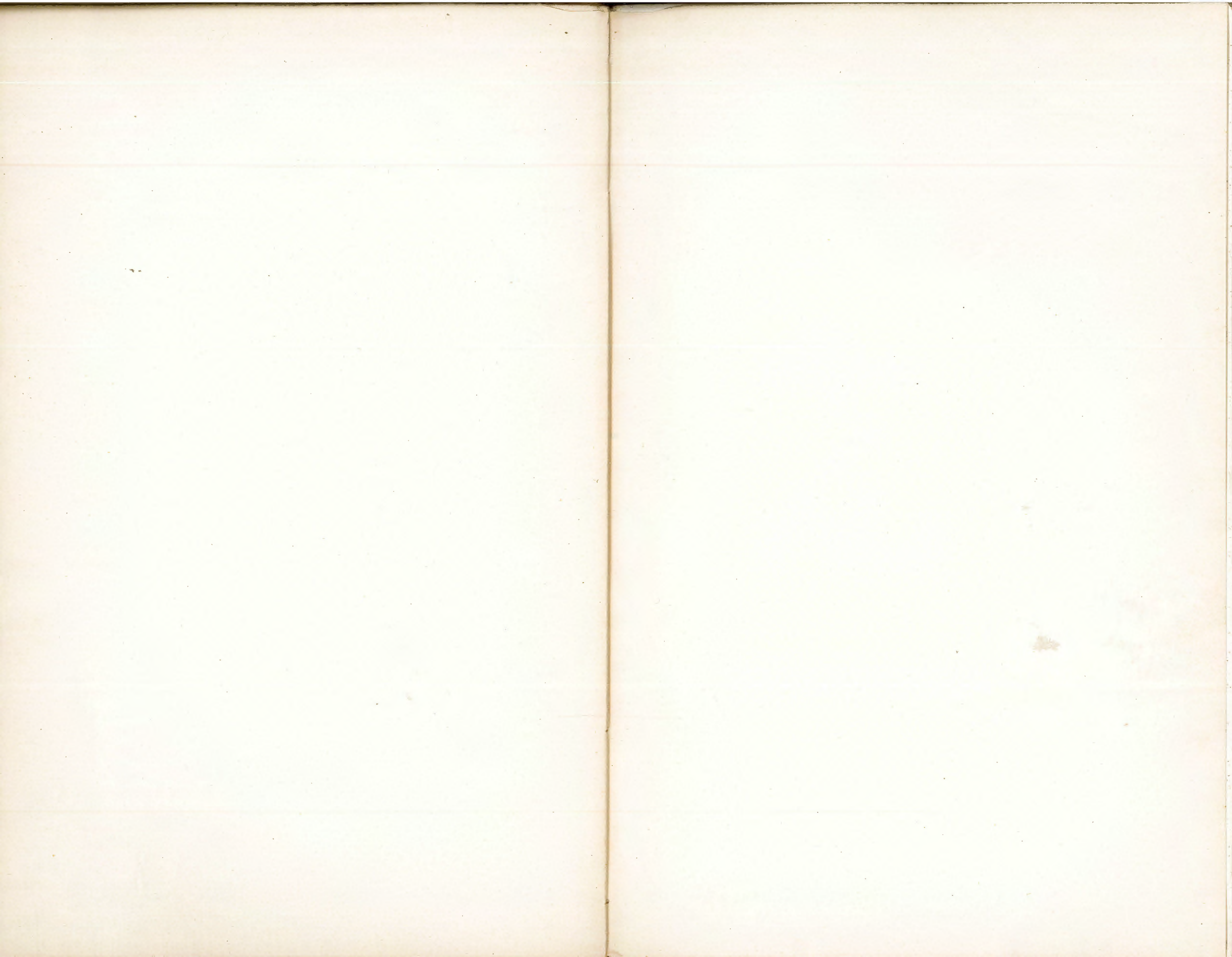
Somme toute, le problème posé par ces poches conduirait toujours à la période postérieure à l'Éocène inférieur et antérieure au Miocène, peut-être Oligocène. Or, dans l'état de nos connaissances de cette période en Égypte, toute indication serait certainement du plus grand intérêt. En effet, dans cette région-ci de la Haute-Égypte, l'Oligocène correspond à une période d'exudation marquée par l'érosion de terrains Éocène. D'autre part, l'Éocène moyen se retrouve actuellement jusqu'à Assiut, mais rien n'empêche de penser qu'il ait pu s'étendre plus au Sud. Dans quelle mesure ces poches nous permettraient-elles de conclure qu'il ne devait pas être très important ici ou peut-être même ne pas exister du tout? Du système fluvial Oligocène seule la région du Fayum porte une trace: son delta. Ailleurs, on en est réduit à des hypothèses qu'aucunes preuves définitives n'ont confirmées.

Ainsi nous serions peut-être en présence de dépôts d'un nouveau genre. Permettront-ils d'apporter de nouvelles clartés sur cette période de l'histoire géologique de l'Égypte? Ce serait à souhaiter.

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*N.B.* — De toute façon cette question se rattache à une autre très voisine et peu étudiée, du moins à ma connaissance, en Égypte: celle de l'érosion souterraine qui certainement doit être assez intéressante dans une région aussi calcaire. Je reviendrai sur cet autre aspect de la question, toujours pour la région de Sohag.







## PLATE I.

## DIMINUTIVE LEVALLOIS AND SO-CALLED PRE-SABYLIAN INDUSTRIES.

NOS.

1. Ordinary Diminutive Levallois core from Wadi Angabyyah. Surface.
2. Diminutive Levallois core (*à deux talons*), from Abbasyah district. (In profusion on surface.)
3. Same as 2; from pyramid desert region. Surface.
4. Diminutive Levallois flake. Same provenance as 3.
5. Pre-Sabylian core.
- 6-7. Pre-Sabylian butt-fragments.
8. Pre-Sabylian median fragment.
- 9-11. Pre-Sabylian terminal fragments.

Nos. 1-4, representing Diminutive Levallois, have all been found on surface or in profusion on surface. Typologically, however, they are identical with specimens found *in situ* in the Fayyoun and other parts of Egypt (*vide supra*, text).

All Nos. 5-11 from Coll. of al-Mat-haf al-Misri (Cairo Museum) regist. G. Caton-Thompson 59590, 58178, 58188, 58189, 58180, 58186 and 58177 respectively. Presumably all surface. Typologically, however, they are identical with other specimens found *in situ* (in the Khargah scarp).





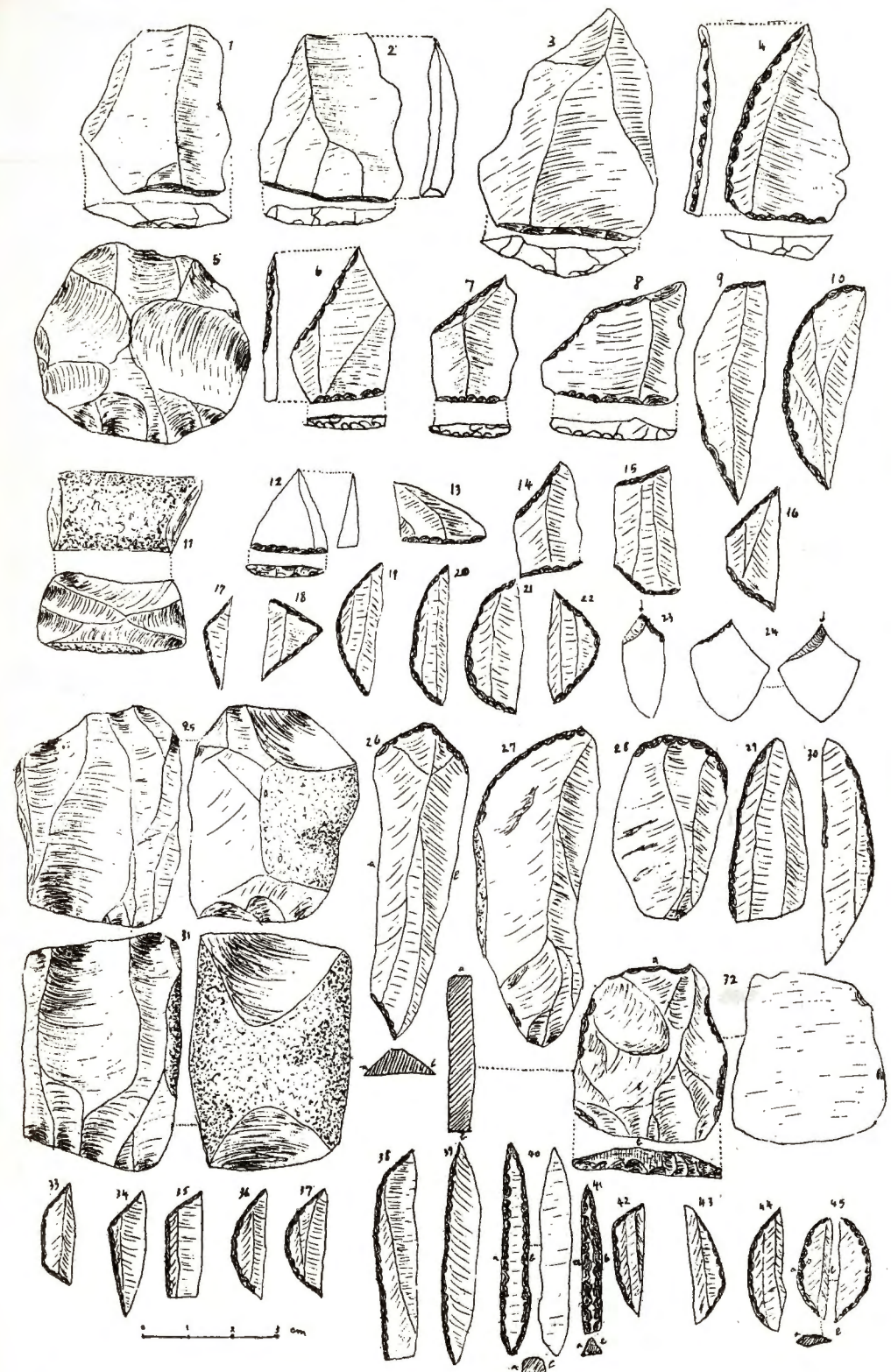
## PLATE II.

## EGYPTIAN UPPER AND FINAL PALAEOLITHIC INDUSTRY.

NOS.

- 1-24. Sabylian [after Ed. Vignard, 1928]. (Various levels in Kom-Ombo basin.)  
 1-4. Lower sub-facies : simple and retouched flakes, No. 4 having bulbar end semi-removed.  
 5-10. Middle sub-facies; one core (*à deux talons*) and truncated flakes. No. 10 is a large backed lunate.  
 11-24. Upper sub-facies : one core (with simple striking platform, but *à deux talons*) and truncated and mutilated flake fragments. Some geometrical forms, lunates and two micro-burins.  
 25-37. Wadi Angabyyah; including two cores (*à deux talons*), one of which having a simple striking platform. Other implements are ordinary backed blades and scrapers. Note No. 32 representing a truncated terminal fragment (from which bulbar end has been removed). Nos. 33-37 are microliths, but apart from triangles there are no true geometrical forms, nor micro-burins. (Note also absence of true burin from either Sabylian or Angabyyah industry.)  
 38-44. Microlithic industry of Hilwan, resembling the microlithic stage of Wadi Angabyyah, but somewhat more evolved. Note long triangles, "*limaces*" (Nos. 49 and 41, the latter of which being a trihedral rod) and the solitary specimen (No. 44) of a lunate whose back has been retouched from both faces so as to have a V-shape instead of being blunt.

Nos. 25-28 from Prof. O. Menghin's Coll. (Vienna); Nos. 29-37 from Coll. of Geography Dept., King Fuad I University, Cairo; and Nos. 38-44 from Coll. of al-Mat-haf al-Misri (Cairo Museum), regist. as Seton-Karr 1900; 50179; Seton-Karr 1900; (not regist.); 50200; 50128; 50201 and 52815 respectively. (Presumably the Hilwan industry, or some of its elements, have survived well into late pre-historic times; *vide supra*, text). All Surface.





## PLATE III.

## OUNANIAN AND ASSOCIATED INDUSTRIES.

NOS.

- 1-7. Ounanian industry from Ounan (surface), N. of Tomboktu, including tanged or shanked blade-points, retouched blade point, retouched blade, "limace" (trihedral rod) and simple flake.

All 1-7 from Coll. of Musée Trocadéro (now Musée de l'homme), Paris, regist. as 33.19.535, 537, 662, (not registered?), 656, 549 and 660 respectively.

- 9-14. Shanked or tanged blade points "limaces" (prisms?) and one *lame à dos rabattu*; from Khargah. Affinities with the Ounanian.

All 9-14 from Coll. of al-Mat-haf al-Misri (Cairo Museum), regist. as 55632, 55634, 55633, 55635, 64266, 55640 and 59550 respectively. All surface.

- 15-23. Shanked and tanged blade points, "limace", trihedral rod (prism flaked all over) and *lames à dos rabattu*; from the Fayyoun. Rather degenerate (and late?) types, but bearing relation to Khargah and Ounan.

Nos. 15-20 from Coll. of Cairo Museum, regist. 64239, 64240, 64231, 64036 and 63987. All surface, but presumably datable physiographically. Nos. 21-23 from Coll. of Geog. Dept., King Fuad I University, Cairo (also surface).

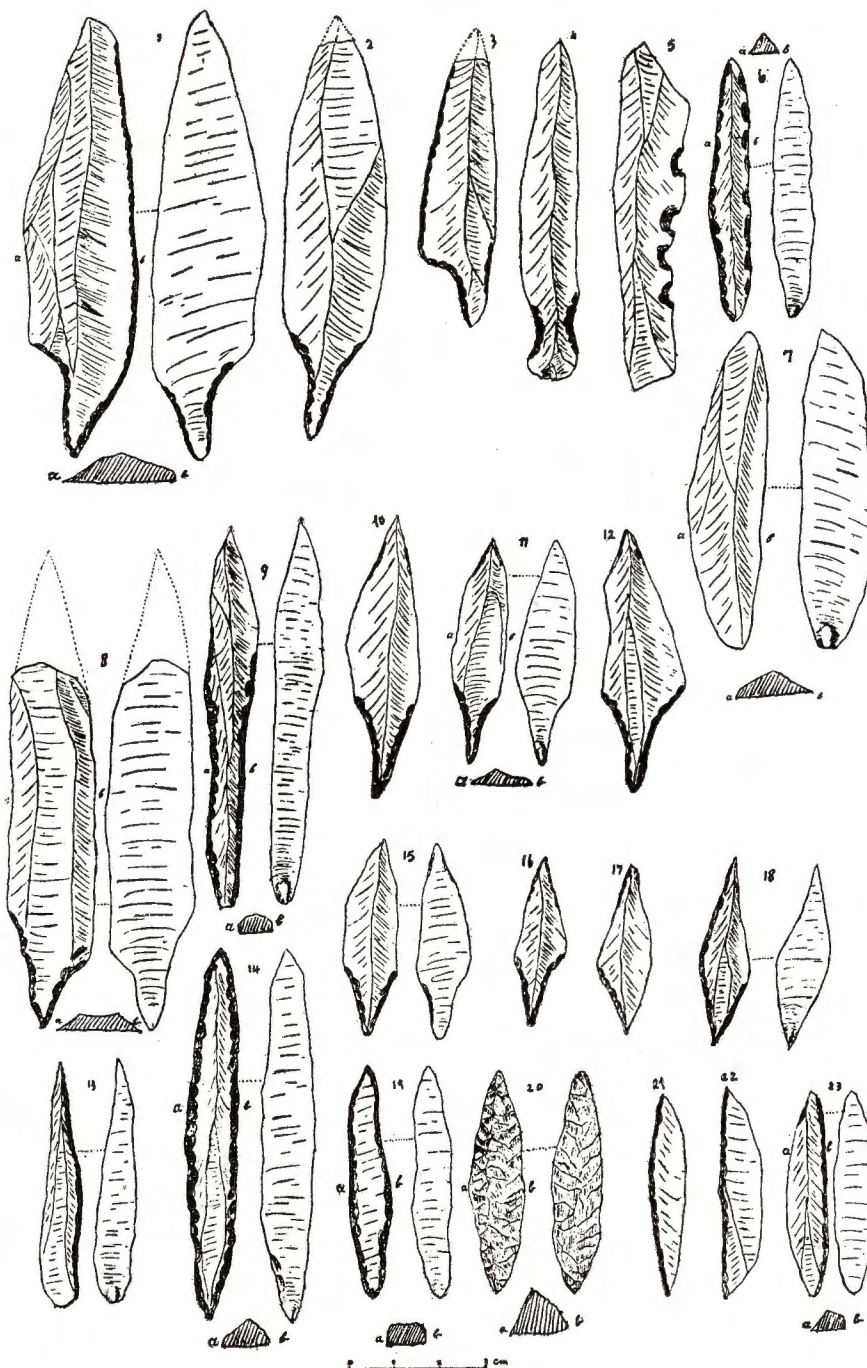




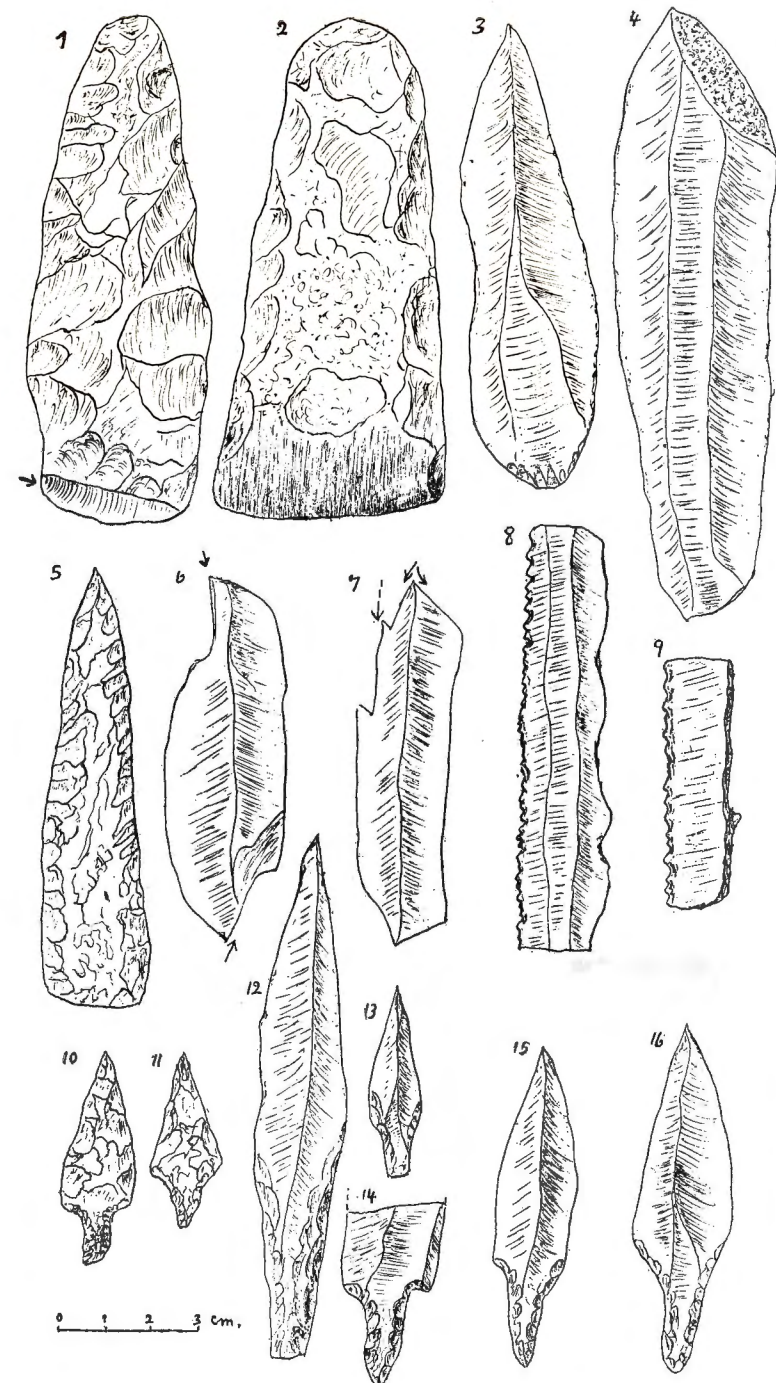
PLATE IV.

THE ENEOLITHIC INDUSTRIES OF PALESTINE.

NOS.

1. An elongated flaked axe or adze whose working end has been re-edged by means of a transversal blow.
2. Elongated Celt (polished working edge).
- 3-4. Blade-knives.
5. Javelin-head (or sickle?).
- 6-7. Burins or gravers.
- 8-9. Blade-sickles.
- 10-16. Arrow-or spear-heads.

All specimens come from excavations at the site of Jericho. Rough drawings after photographs published in J. Crowfoot (1937). Nos. 1, 3, 6 and 12-15 Tahounian (so called "Neolithic" layers of the site); Nos. 2, 5, 7 and 10-11 Chalcolithic of the site and Nos. 4, 8, 9 and 16 Early Bronze of the site. The similarities between this flint group (taken as a whole) and those of post-Neolithic Egypt are fairly clear.



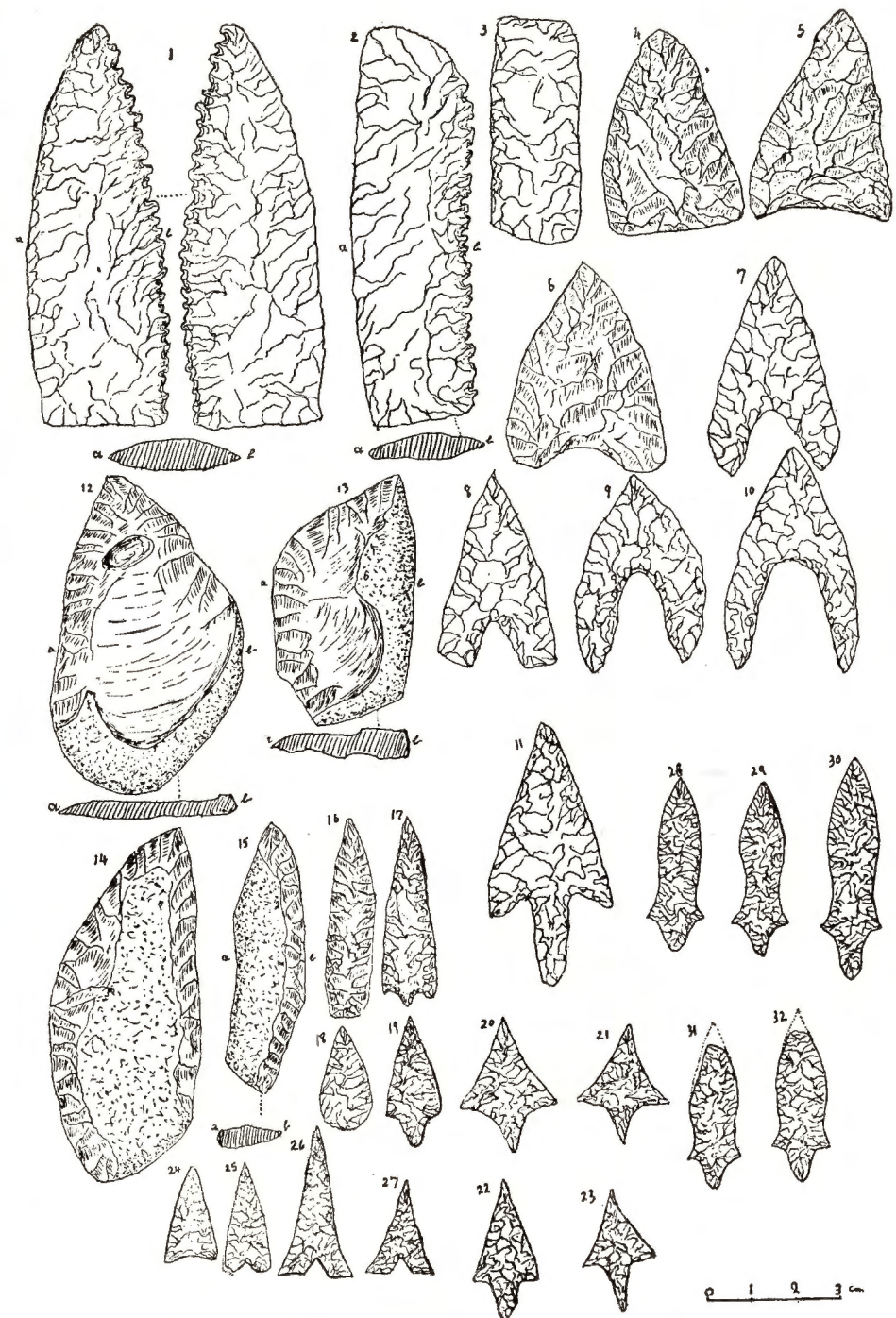


## PLATE V.

## FAYYOUN CULTURES AND THE NEOLITHIC OF THE W. SAHARA.

NOS.

- 1-3. Bifacial sickles of the Fayyoun A type, all from Merimde (*in situ*); Coll. of the Kunsthistorisches Museum (Vienna) [not registered].
- 4-10. Triangular, slightly hollow-based and hollow-based arrow-heads of the Fayyoun A type. All after G. Caton-Thompson and E. W. Gardner (1934 b), Pl. XXXVIII (all from Fayyoun, *in situ*).
11. Tanged arrow-head of the Fayyoun B type. After G. Caton-Thompson and E. W. Gardner (1934 b), Pl. XLII, No. 11 (from Fayyoun, *in situ*).
- 12-13. Two knife-points of tabular flint with butt, or butt and one of the sides, left intact. Typical of Fayyoun B. Both from Coll. of Mus. of Arch. and Ethn. (Cambridge) regist. No. 27.1513 b.
- 14-15. Similar to 12-13 but from W. Sahara (Tabelbalat); Coll. of the Inst. de Paléont. hum. (Paris), regist. 1915-2. (Surface).
- 16-27. Various types of Saharan arrow-heads (Tabelbalat, etc.); all from Coll. of the Inst. de Paléont. hum. (Paris), not registered. (Surface).
- 28-30. Late pre-Dynastic (or proto-Dynastic) pistiliform arrow-heads from Abydos (or Naqadah?); after J. de Morgan (1924), fig. 28 (*in situ*).
- 31-32. Similar to 28-30, but from Ouargla Oasis, showing connections with Late pre-Dynastic or proto-Dynastic Egypt. Both from Coll. of Inst. de Paléont. hum. (Paris), registered as from Ouargla. Surface.



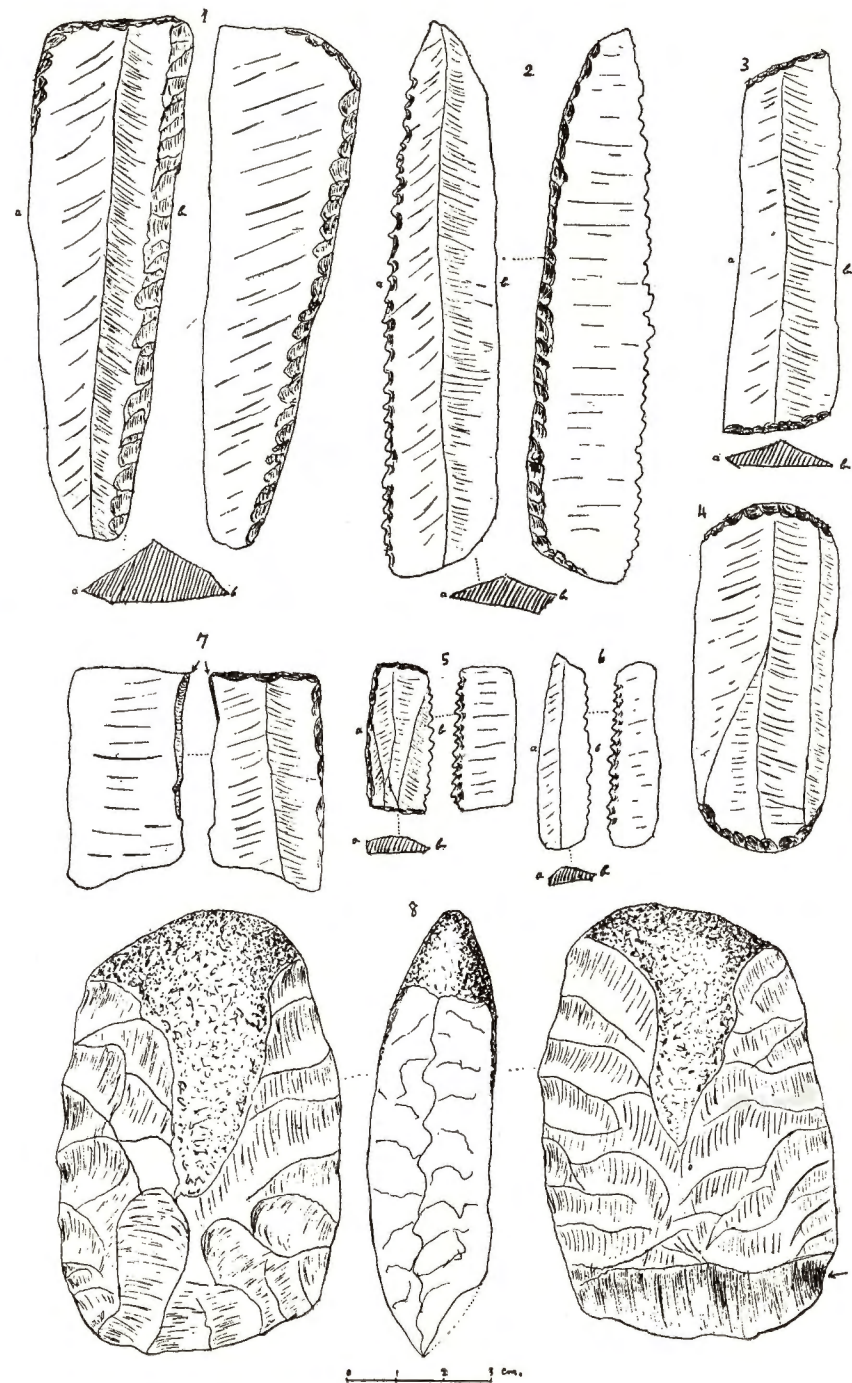


## PLATE VI.

## POST-NEOLITHIC INDUSTRY OF EGYPT.

NOS.

- 1-4. No. 1 is a unifacial knife-blade, No. 2 a unifacial blade-sickle, while Nos. 3-4 may have served either purpose. Note the alternate retouching in Nos. 1-2 (*i. e.* one edge of tool retouched on upper face of blade and other retouched on lower one). Contrast with the bifacial technique of Fayyoun A. All from pre-Dynastic cemeteries near Deir Tasah (but not of Tasian date); Coll. of al-Mat-haf al-Misri (Cairo Museum), regist. as S. Gabra 1929.
- 5-8. Specimens of the special Upper Egyptian pre-Dynastic industry of the Armant region. No. 5 is a sickle with vertical trimming on back and the two ends. No. 6 is a sickle-blade with inverse trimming (*i. e.* trimming on lower—flat—face of blade). No. 7 is an angle-burin and No. 8 is an axe which has been re-sharpened by means of a transversal blow on cutting-edge [*"Hache avivée"*]. All from excavations at the pre-Dynastic settlement of Armant; now in Coll. of Manchester University Museum. The existence of the burn or graver (until recently considered as a Palaeolithic tool) in this settlement is of special interest. We have already referred in the text to its occurrence in other pre-Dynastic settlements, such as that of Ma'adi. There is even some reason to believe that this implement (especially useful for engraving on stone) continued to be used in Dynastic Egypt. We have identified it amongst a collection of tools from Dynastic levels in Armant (found by O. H. Myers and sent to present writer for study; see forthcoming pub. by Egypt Exploration Society).











1. — L'alignement Nord du Cap vu de la base B. Le rayon noir est un double mètre.



2. — Vue vers l'Ouest, prise de la base B. Son champ est à peu près marqué sur le relevé topographique par l'angle ouvert vers l'Ouest, issu de la base B.





1 et 2. — Faces Nord et Ouest de la poche de la cote 275. On remarque très nettement les traces de l'érosion éolienne ainsi que la saillie que fait le noyau de la poche. Les galets au-dessous de la poche semblent en provenir.







1. — Une des poches du Cap voisine de la base B. Détails de la paroi qui apparaît lisse.



2. — Poche se trouvant dans le lit d'un Wadi à la cote 150. Un reste du ciment, contenant encore quelques galets, se retrouve contre la paroi rocheuse au-dessus du noyau en saillie.





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